

KANSAS FARMER

Volume XLVI. Number 11

TOPEKA, KANSAS, MARCH 12, 1908

Established 1863. \$1 a Year



One of 100 Peaches and Cream Stallions and Mares—that must positively be sold by Frank Iams, St. Paul, Neb. "Panle or no panle."

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KANSAS FARMER.

Established in 1863.

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 Special reading notices, 50 cents per line.
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 Special Want Column advertisements, six words per line, 10 cents per week. Cash with the order.
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 All new advertising orders intended for the current week should reach this office not later than Monday.
 Change of copy for regular advertisement should reach this office not later than Saturday previous to publication.
 Every advertiser will receive a copy of the paper free, during the publication of the advertisement.
 Address all communications to
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THE WESTERN SCHOOL LAND CASES.

The long controversy over Western Kansas school lands made decided progress last week when Judge John C. Pollock of the United States Circuit Court decided in favor of the present holders, the people who have complied fully with the law in paying their money, and in residing upon, improving, and cultivating said lands, as against speculators who secured assignments of supposed rights of persons who had a long time ago contracted with the State for the purchase of said lands, had made some payments on such contracts, had defaulted on further payments as they became due, and had abandoned the lands as worthless.

The ground for the speculators contention was that the full formalities of the law had not been observed by certain officers in the proceedings for declaring the abandonment of the contracts and the lands and the consequent forfeiture of the rights of said first purchasers in the lands.

The court held that the speculator who held the certificate for the abandoned purchase had not acquired contract rights or rights in the property that would enable him to maintain the action against the present possessor of the land under his contract of purchase from the State.

In passing on the case Judge Pollock remarked:

"Both in principle and on authority I think it altogether clear, plaintiff, as the holder of the certificate of purchase received by Peck from the State, whatever his rights thereunder, if any may be, has no such legal title to, or rights in, the property in controversy as will enable him to maintain this action against defendant in possession under his contract of purchase from the State.

"The decision of this question leaves unnecessary of determination the many other interesting ones involved in this action, such as the right of the plaintiff to maintain his action on a contract, the conditions of which admittedly have been broken by him, or his assignors; whether he or his assignors could stand by, knowing the State had attempted a forfeiture of the contract rights under the first sale made, allow defendant to purchase at a subsequent one, go into possession, remain there for a long period of time, make valuable and lasting improvements, without protest, and then

successfully maintain this action; or whether the attempted forfeiture by the State, under the facts of this case, is wholly void and of no force or effect.

"On the whole case as presented, and on the undisputed facts, I have no doubt whatever that judgment must and should go for the defendant in this case and in the other cases submitted."

The undoubted equity of this decision will commend it to all fairminded people who have no personal interests at stake. It will be received as a god-

membership representing about 6,000 farmers, among whom are a number of persons of African descent. The internal dissensions and especially the enrollment of negroes resulted in a call for a conference which was recently held at Hutchinson. This was attended by a large number of delegates from Kansas Unions and by representatives of the National body. The National officers, being Southern men, objected strenuously to the admission or the continuance of negroes as members. A result of the conference was the resignation of the for-

fere with rural telephones. I notice that Labette County does not have these big hedges along the public highway. What is the law on hedges in Kansas? A READER.

Montgomery County.

The General Statutes of 1905, Chap. 40, Sec. 45, provide "That owners of real estate in any county in the State of Kansas shall keep all hedge fences along the public highway cut and trimmed down to not over five feet high, except trees not less than sixteen feet apart and hedges necessary as a protection to orchards, vineyards, and feed lots; said feed lots not to extend more than forty rods. All brush cut from said hedges shall be cleaned up and removed or burned."

Section 47 of said chapter makes it the duty of the road overseer to enforce the provisions of the law.

Section 48 provides for the adoption of the provisions of this law by a vote of the people of any county.

Section 49 provides that the law shall not apply in any county until after the election provided for in Section 48.

If it is desired to have this law in force in Montgomery County it will be necessary to proceed by petition as provided in Section 48.

Different editions of the Statutes have the sections numbered differently, but this law may be found in any copy of the Kansas Statutes under the title "Fences."

TRYING TO SCARE.

Following is a copy of a big poster which is probably receiving wide distribution:

FARMERS AND WORKINGMEN, ATTENTION.

The following figures will interest you: Do you know that the brewers, malsters, and distillers of the United States used in their products during the past year farm produce to the value of upwards of one hundred and ten million of dollars!! including, corn, barley, rye, oats, hay, and other grains of various kinds?

If the market for the rye fields of California, Minnesota, Wisconsin, and Missouri is destroyed those States will offer greater competition to the farmer who raises wheat and oats. If the farmers of Pennsylvania, Michigan, Illinois, and the other rye- and corn-producing States can't find buyers for corn it will mean additional competition for you.

Brewers and distillers furnish a livelihood for upwards of two and one half millions of people and they buy annually in lumber, cooperage, building supplies, engines, boilers, glass, and other manufactured goods having a value of \$150,000,000 and they pay in license revenue, and other State, county, and city taxes, one third of all taxes paid in the United States.

Farmers and working men! can you afford to allow the prohibition fanatic to destroy the market for your grain and labor?

Can you afford to longer allow stump speakers, who pay no taxes and who are employed by no city organizations who pay no taxes, to add to your burden by compelling you to maintain public institutions that are now supported by the business concerns that these interlopers are trying to kill?

An attempt is being made throughout the country to build up a political party power at the expense of the farmer and workingman.

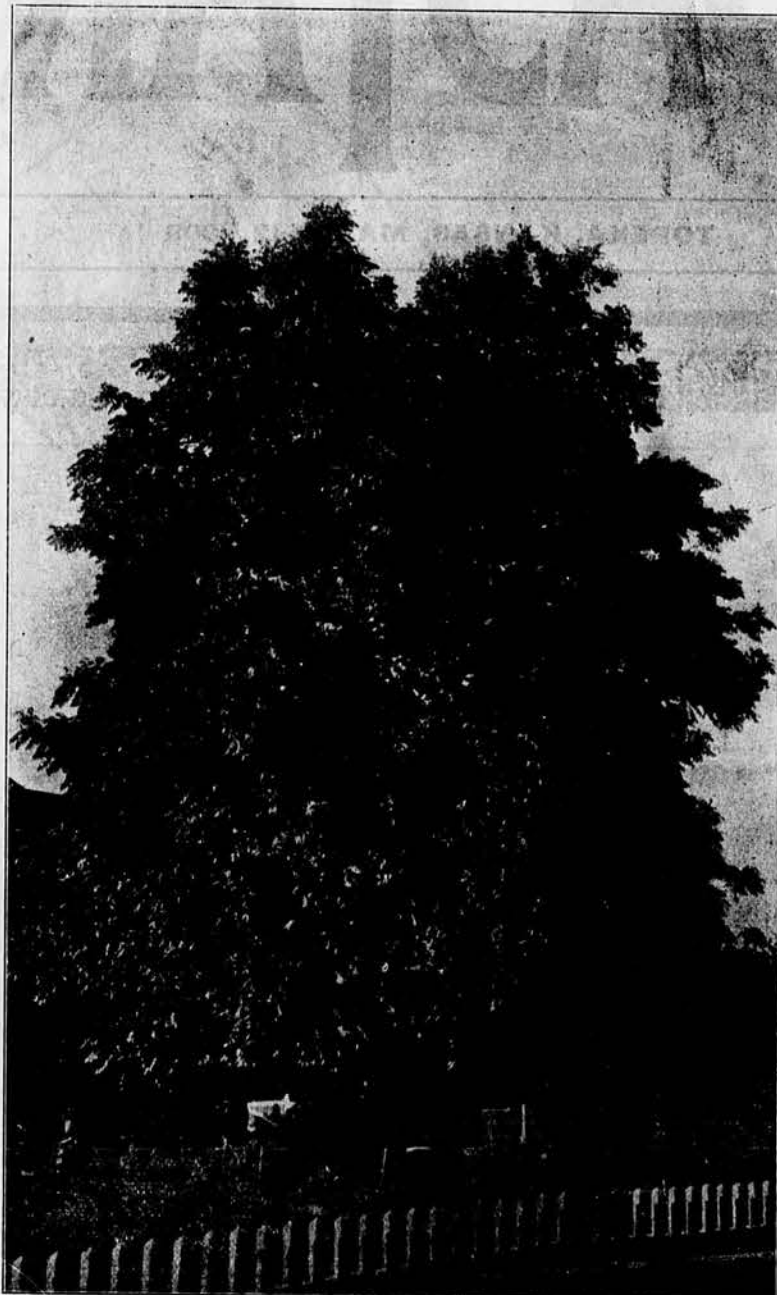
Farmers! do you intend to permit these crafty fanatics to rob you of the market for your grain and load you up with the additional taxes which you can not afford to pay?

Every farmer, every workingman, every manufacturer in the United States, should now assert his rights and use every effort to suppress this growing evil of prohibition and hypocritical humbug, which is allowed to prevail will create a financial crisis such as the world has never seen.

The brewers and distillers of the United States at a recent convention of representatives of these interests manifested great alarm on account of

WHAT CAUSES HEADACHE

From October to May, Colds are the most frequent cause of Headache. LAXATIVE BROMO QUIN-INE removes cause. E. W. Grove on box, 25.



ROYAL WALNUT.

One of Luther Burbank's Hybrids. Sixteen years old, 100 feet high, 54 feet spread of branches, 3 feet in diameter, three feet above ground. (See p. 334.)

send by those who have made their homes in good faith on these lands and have by their efforts and their sacrifices given value to holdings, which former occupants had abandoned as worthless, even uninhabitable.

THE KANSAS FARMER has little patience with those constructions of law by which it is sought to make a technicality defeat the ends of justice.

It is suggested that this case will be taken to a higher court. It is hard to believe that a higher court will at this day and age allow itself to be used to prevent equity. Other suits are hinted at. The brave men who have made Western Kansas farms valuable will doubtless defend all such suits. They should win in the end.

THE FARMERS' UNION AND BUSINESS.

The Farmers' Educational and Co-operative Union of America is an organization which has had a great growth and much influence in the South. For a few years this Union and the American Society of Equity, whose headquarters have been at Indianapolis, Indiana, have been rivals for favor of the farmers of Kansas. Each organization has had its internal trouble as well as the outside competition of its rival.

The Educational and Co-operative Union had enrolled in its 325 locals a

mer officers of the Kansas State Union and the election of the following: President, E. H. Hewins, Topeka; vice-president, Alex Naylor, Cimarron; secretary-treasurer and business manager, Alvin Allen, Jetmore; executive board, F. I. Burt, Hodgeman County; E. S. Newlin, M. M. McAuliffe, Saline; F. M. Batchman, Barton County, and J. L. Gant, Barber County. C. E. Roughton of Jetmore is lecturer.

A solution of the negro question in this State is not unlikely to be found in the organization of independent unions of colored men which will act in harmony with the white men's unions without direct affiliation.

The business manager of the State Union was in Topeka last week. He made a good impression upon business men with whom he came in contact. His purpose is to secure to members of the Union advantages of cooperation and at the same time to pursue a "live and let live" policy towards dealers.

TRIMMING HEDGES.

EDITOR KANSAS FARMER:—I would like to ask a few questions about the hedge laws of Kansas. In Montgomery County hedges are allowed to grow to immense size along the public highways. The farmers claim they do not have to keep them cut down to any given height. These big hedges make muddy roads. They also inter-

the rapid and persistent development of effective opposition to the liquor traffic. They solemnly concluded that something must be done to check the additions to the "dry" areas of the country. As a conclusion of what that something should be, the above poster suggests that it was decided to go out through all the country and try to scare somebody.

This kind of scare has been attempted in Kansas at diverse times for over a quarter of a century. It never worked very well in this State. Just now when corn is so high that the farmer can scarcely afford to feed it to hogs and when wheat is selling around the dollar mark at Kansas City just after the most phenomenal increase in "dry" territory ever witnessed, seems a rather inopportune time to try to scare the farmer by predicting dire calamity if the distiller and the brewer be not allowed to change these beneficent gifts of God into poison and to administer it to their fellow men to their hurt through the agency of dram shops under various names.

No, in view of the rapid and persistently increasing demand for food grains to feed the world's people whose numbers and whose wants never cease to augment as land grows scarcer, the farmer refuses to accommodate the distillers and the brewers by getting scared even at the posting of doleful forbodings printed in red and black on big sheets of paper.

Nor is the laboringman willing to be scared to accommodate the distillers and brewers who desire to make untrititious food grains into poisons and to be allowed to sell these poisons indiscriminately to the hurt of individuals and communities, taking away the earnings that ought to be used in the purchase of things needful for the comfort of families in homes.

If the attempt to scare the farmer about the destruction of his market were worthy of attention, it would offset the attempt to scare the laborer, for, if the representation about the increased price to the farmer were true, it would also be true that the effect would be to cause the laborer to pay higher prices for his food.

But it is not true that the welfare of any people can be increased by converting the useful products of land and labor into harmful products and using them harmfully. Municipalities and States do wisely when they curb and prohibit a pernicious traffic. The principles of economics can not be overthrown by attempts to scare sensible people.

HOMESTEAD QUESTIONS.

THE KANSAS FARMER is just now receiving a good many inquiries with reference to homestead rights and related subjects. Following are three of these:

1. How long can a homesteader leave his claim or homestead without losing his right? Can I contest a homestead right after the person claiming the right has tried to make final proof and failed? What is the best way to go at it?

2. A man went to California in 1890 and took a homestead on a mountain, thinking he could make a living on it keeping bees. Two bad years together discouraged him, so he relinquished his claim back to the Government. Can he now take a homestead in another State on Government land, or could he preempt 160 acres?

3. Was any law passed by the last Congress affecting the rights of people who filed on land prior to April 23, 1904?

It will be well for any person who desires information with reference to homesteads on Government lands to write to the nearest United States land office, or to the Commissioner of the General Land Office, Washington, D. C. requesting a copy of the General Land Office circular of "Suggestions to Homesteaders and Persons Desiring to Make Homestead Entries," dated August 4, 1906.

Section 25 of this circular says: "The residence and the cultivation re-

Only One "BROMO QUININE". That is LAXATIVE BROMO QUININE. Look for the signature of E. W. GROVE. Used the World over to Cure a Cold in One Day. 25c

THE WELD

"PITTSBURGH PERFECT"

73 DIFFERENT STYLES

All made on the same principle—welded

One of these many styles is exactly suited to any possible fence requirement you could have.

Absolute protection. Keeps little chicks in, largest wild animals out.
A bull can't break it.

The "Pittsburgh Perfect" Fence has every possible advantage over any other fence construction known. There is not a superfluous part in it. Every atom of it counts for strength and durability.

Self-adapting to all unevenness of ground and weather changes. Always tight, upright and firm.

Pittsburgh Steel Co.
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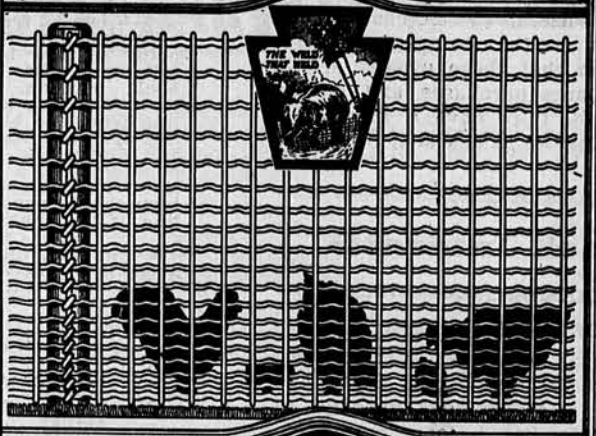
Your dealer has it. Or send for catalog

THAT HELD

When you first look at the "Pittsburgh Perfect" Fence the wires appear to be merely laid one across the other—so simple is the construction.

There are no bunglesome twists, ties, wraps or clamps (each of which methods crack galvanizing and cause rust).

The wires are electrically welded at every contact point and the weld is as strong as the wire—the galvanizing perfect and intact.



quired by the homestead law means a continuous maintenance of an actual home on the land entered to the exclusion of a home elsewhere, and continuous annual cultivation of some portion of the land. A mere temporary sojourn on the land, followed by occasional visits to it once in six months or oftener, will not satisfy the requirements of the homestead law, and may result in the cancellation of the entry."

The officials of the United States Land Office at Topeka inform the editor that failure in an attempt to make final proof leaves the land in question subject to contest. Contest affidavit may be filed as the first step in the proceedings. A contestant will most certainly need the services of an attorney who is accustomed to practise before the United States Land Offices.

2. The circular referred to, at Sec. 13, paragraph c, shows that "Second homestead entries for a quarter-section or smaller sub-division of public lands may be made by any homesteader who forfeited his original entry prior to April 28, 1904, for the reason that he was unable to perfect it because of some unavoidable complication in his business or personal affairs, or because he was honestly mistaken in the character of the lands; but no such entryman is entitled to make a second entry if he relinquished his original entry for a consideration."

The preemption law has been repealed.

3. No law was passed by the last Congress affecting homestead rights in anyway. The circular of August 4, 1906, herein referred to and quoted, is the latest official utterance on these questions.

THE UNEMPLOYED.

It has been often said that "one half of the people do not know how the other half live." It is measurably true also that one half of the people do not know what the other half think. A slight reversal of times always brings occasion for exposure of the skeleton in the closet of modern civilization.

Here it is in the form of an address issued by the "National Congress of the Unemployed," held at Saint Louis in February, 1908.

"To the President, Congress, State Legislatures and People of the United States:

"Whereas, the United States Treasury advanced \$25,000,000 to the banks for their relief in the late financial panic; and

"Whereas, There are millions of people out of employment in the towns, cities, and villages of our land; and

"Whereas, In a government established for the express purpose of allowing people to enjoy 'Life, Liberty, and the Pursuit of Happiness,' we have in certain places been denied the constitu-

tional rights of assemblage, free speech, petition and remonstrance, and have found it impossible thus far to secure municipal or State relief; and

"Whereas, On this account, multitudes can barely exist, many are slowly dying for want of nourishment and proper shelter, and others are driven to desperation and crime, through no fault of their own; and

"Whereas, The working class, even when employed, do not receive full product of their labor, but often only enough for the bare necessities of life, and in an industrial panic are wholly unable to procure these things; and

"Whereas, In brief, we believe you will recognize at once the existence of these conditions, now that they are brought to your attention;

"Therefore, The National Committee of the Unemployed, representing the cities in which the need is most acute, most urgently calls for suitable measures for the relief of the unemployed, in this time of their distress.

"We demand adequate measures whereby citizens of both sexes shall be insured against enforced idleness, and suggest that this may be done even in the same way as the soldiers are supported in periods of inactivity, or upon being invalidated, that the soldiers of industry be treated at least as well as the soldiers of war. And, further, that in view of the fact that the fundamental cause of enforced unemployment lies in the inaccessibility of the machines, mills and land to all the workers, we demand that sufficient of such land as remains in the public domain be now effectively put at the disposal of the unemployed for colonization or settlement, with such provision of implements and necessities as shall enable them to harvest the first crop.

"We suggest also that in towns and cities idle lands suitable for cultivation may be put at the disposal of the unemployed immediately, with similar provision; and

"Whereas, Every year, in the United States, about 100,000 men are arrested under the present vagrancy laws, for no other crime than being without work and without homes,

"We demand of the State and local Governments the modification of the vagrancy laws, so that in all cases where vagrants shall be sentenced to labor in jails or other buildings used for penal purposes, or upon the public streets or highways, said vagrants shall be entitled to a credit of fifty cents each for every day's imprisonment, said sum to be paid to them in cash upon their release; and

"Whereas, From time to time there are industrial opportunities in one place and another, and these are inaccessible on account of the urgent need of transportation,

"We demand that the Federal Government furnish transportation in such cases from one place to another, but in a way not to interfere with the workers anywhere in their efforts to better their condition.

"As further measures of relief, we suggest any or all of the following as may be found adequate:

"1. That Congress issue and appropriate \$150,000,000, or as much as shall be necessary, to improve and deepen the waterways of the entire country, and especially those of the Ohio and Mississippi Rivers, by means of which enterprises employment shall be furnished to the unemployed.

"2. That Congress make ample provision and appropriation for a system of National highways and better rural free delivery routes, and that these enterprises also be made to furnish employment to the unemployed.

"3. The enactment into law of the so-called Coxe non-interest bearing bond bill, an act to provide for public improvements and for the employment of the citizens of the United States, whereby towns, counties, cities, or States, desiring to make public improvements and give employment to those unem-

ployed, may deposit with the Secretary of the Treasury of the United States a non-interest bearing twenty-five year bond, said bond to be retired at the rate of 4 per cent of the principal per annum; and that against this bond the Secretary of the Treasury of the United States shall cause to be engraved and printed Treasury notes in the denominations of one, two, five, ten, and fifty dollars each, which shall be a full legal tender for all debts, public and private, to the full face value of said bond, and deliver in return for it ninety-nine per cent of said notes, retaining one per cent for the expense of taking care of this department.

"And in order that in future the victims of enforced idleness, together with the whole people, may be able, by direct legislation, to enact such remedial or corrective measures as they may deem adequate, we call for the establishment of the system of initiative and referendum in municipality, State and Nation.

"We further recommend that, in all towns and cities where the unemployed exist in numbers, they assemble in a body on the morning of Sunday, February 16, march to the most prominent church or churches, and attend the services, making request of the pastor that he read from his pulpit on that occasion a copy of these Resolutions to the President, Congress, and people of the United States.

"We call the attention of the President, Congress, Legislatures, and people to the fact that the only complete, permanent and final solution of the problem of poverty and enforced unemployment is a cooperative commonwealth.

"And, finally, we urge the immediate enactment into law, State and National, of the remedial measures herein set forth, to the end that they may restore industrial opportunity to all the people and prevent degradation and crime.

"(Signed)
"JAMES EADS HOW, St. Louis.
"JACOB S. COXEY, Mt. Vernon, Ohio.
"WALTER J. MILLARD, Cincinnati, Ohio.
"BEN L. REITMAN, Chicago, Ill.
"H. L. GAINES, Kansas City, Mo.
"GORA D. HARVEY, Guthrie, Okla.
"JOHN EILLS, Boston, Secretary National Committee of the Unemployed."

What it is in our economic and industrial systems and the uses made of them by people at the two ends of the human column that makes such a presentation as the above seem true and desirable in the estimation of a considerable number of people is hard to define, and the difficulty of the problem of the remedy is even more serious. But it is well that those of us who have so much to do that it is a daily question how we shall accomplish the tasks that are crowding upon us shall for once follow the thoughts attributed to those whose lot is from any cause that of "the unemployed."

DEDUCT DEBITS FROM CREDITS IN MAKING RETURNS TO THE ASSESSOR.

EDITOR KANSAS FARMER:—At a sale held here recently we got to disputing on the new tax law. One person said that merchants would give in their stock at full value and then deduct their debts and pay tax on the balance, while farmers had no right to deduct their debts from their assessment.

This looks like class legislation and must be unconstitutional.

Kindly tell me concerning this law. Dickinson County. P. H. MEYERS.

In instructions to County Assessors the Tax Commissioners say:

"The actual value in money of debts may be deducted from the aggregate actual value in money of credits, but there is one exception to this rule, i. e., a debt which is secured by government bonds or other non-taxable security can not be deducted from credits; but debts can not be deducted from moneys or mortgages, nor, in fact, from any kind of property other than credits."

This rule is general and applies as well to farmers as to merchants. It is more useful to merchants and manufacturers than to most others for the reason that these usually are in debt for large purchases, and, on the other hand, they have a great deal out-standing for goods sold on credit.

Stock Interests

Official Score Cards.

As Kansas has grown in importance as a live-stock-producing State the value of a thorough knowledge of stock-judging has become more generally and more highly appreciated. Stock-judging is now a regular and important part of the course of study in the Agricultural College and very many farmers are taking advantage of the short course offered by that institution to learn that which they would gladly have received in their school days. In addition to the many who are able to improve their opportunities in these ways there are many others who can not have these advantages but who are equally anxious to learn and to whom this expert knowledge is equally valuable. Such farmers and breeders must depend upon the farmers' institutes; such textbooks as may be available, and upon the agricultural and live-stock press.

Even those who are reckoned experts in some lines of live-stock judging are many times not proficient in all and very few really expert judges can have in mind the standards of excellence that have been adopted for the several breeds.

As the agricultural and live stock journal is at once the text-book of the beginner and the encyclopedia of the expert, THE KANSAS FARMER takes pleasure in publishing the score cards for the different breeds which are most common in this section of the West. These are used in the regular college class work by Prof. R. J. Kinzer of the Kansas Agricultural College.

Draft Horses.

1. Age.....
2. Height—Estimated.....
3. Weight—Over 1500 pounds; score according to age.....
4. Form—Broad, massive, proportioned.....
5. Quality—Bones, smooth, hard; tendons lean; skin and hair fine.....
6. Temperament—Energetic; good disposition.....
- HEAD AND NECK:
7. Head—Lean, medium size.....
8. Muzzle—Fine, nostrils large; lips thin, even.....
9. Eyes—Full, bright, clear.....
10. Forehead—Broad, full.....
11. Ears—Medium sized, well carried.....
12. Neck—Muscle, crest high; throat latch fine; windpipe large.....
- FORE QUARTERS:
13. Shoulders—Sloping, smooth, snug, extending into back.....
14. Arms—Short, thrown back.....
15. Forearms—Heavily muscled, long, wide.....
16. Knees—Wide, clear cut, straight, deep, strongly supported.....
17. Cannoas—Short, lean, wide; sinews large, set back.....
18. Fetlocks—Wide, straight, strong.....
19. Pasterns—Sloping, lengthy, strong.....
20. Feet—Large, even size; horn dense; sole concave; bars strong; frog large; elastic; heel wide; one-half height of toe, and verticle to ground.....
21. Legs—Viewed from front, a perpendicular line from the point of the shoulder should fall upon the center of the knee, cannon, pastern and foot; from the side a perpendicular line dropping from the center of the elbow joint should fall upon the center of the knee and pastern joints and back of hoof.....

PILES CURED IN 6 TO 14 DAYS.
PAZO OINTMENT is guaranteed to cure any case of Itching, Blind, Bleeding or Protruding Piles in 6 to 14 days or money refunded. 50c

- BODY:
22. Chest—Deep, wide, low, large girth.....
23. Ribs—Long, close sprung.....
24. Backs—Straight, short, broad.....
25. Loins—Wide, short, thick, straight.....
26. Underline—Flank low.....
- HIND QUARTERS:
27. Hips—Smooth, wide.....
28. Croup—Wide, muscular.....
29. Tail—Attached high, well carried.....
30. Thighs—Muscular.....
31. Quarters—Deep, heavily muscled.....
32. Gaskin or Lower Thighs—Wide, muscled.....
33. Hocks—Clean cut, wide, straight.....
34. Cannoas—Short, wide; sinews large, set back.....
35. Fetlocks—Wide, straight, strong.....
36. Pasterns—Sloping, strong, lengthy.....
37. Feet—Large, even size; horn dense; dark color; sole concave; bars strong; frog large, elastic; heel wide, one-half height of toe, and verticle to ground.....
38. Legs—Viewed from behind, a perpendicular line from the point of the buttock should fall upon the center of the hock, cannon, pastern and foot; from side a perpendicular line from the hip joint should fall upon the center of the foot and divide the gaskin in the middle; and a perpendicular line from the point of the buttock should run parallel to the line of the cannon.....
- ACTION:
39. Walk—Smooth, quiet, long, balanced.....
40. Trot—Rapid, straight, regular.....
- Total.....

Light Horses.

1. Age.....
2. Height—Estimated.....
3. Form—Symmetrical, smooth, stylish.....
4. Quality—Bone clean, firm and indicating sufficient substance; tendons defined; hair and skin fine.....
5. Temperament—Active; kind disposition.....
- HEAD AND NECK:
6. Head—Lean, straight.....
7. Muzzle—Fine; nostrils large; lips thin, even; teeth sound.....
8. Eyes—Full, bright, clear, large.....
9. Forehead—Broad, full.....
10. Ears—Medium sized, pointed, well carried and not far apart.....
11. Neck—Muscle, crest high; throat latch fine; windpipe large.....
- FORE QUARTERS:
12. Shoulders—Long, smooth with muscle; oblique, extending into back.....
13. Arms—Short, thrown forward.....
14. Forearms—Muscled, long, wide.....
15. Knees—Clean, wide, straight, deep, strongly supported.....
16. Cannoas—Short, wide; sinews large, set back.....
17. Fetlocks—Wide, straight.....
18. Pasterns—Strong; angle with ground, forty-five degrees.....
19. Feet—Medium, even sized, straight; horn dense; frog large, elastic; bars strong; sole concave; heel wide.....
20. Legs—Viewed from front, a perpendicular line from the point of the shoulder should fall upon the center of the knee, cannon, pastern and foot; from the side, a perpendicular line dropping from the center of the elbow joint should fall upon the center of the knee and pastern joints and back of hoof.....
- BODY:
21. Withers—Muscled and well finished at top.....
22. Chest—Deep; low; large girth.....
23. Ribs—Long, sprung, close.....
24. Back—Straight, short, broad, muscled.....
25. Loins—Wide, short, thick.....
26. Underline—Long; flank let down.....
- HIND QUARTERS:
27. Hips—Smooth, wide, level.....
28. Croup—Long, wide, muscular.....
29. Tail—Attached high, well carried.....
30. Thighs—Long, muscular, spread; open angled.....
31. Quarters—Heavily muscled, deep.....
32. Gaskin or Lower Thighs—Long, wide, muscular.....
33. Hocks—Clearly defined, wide and straight.....
34. Cannoas—Short, wide; sinews large, set back.....
35. Fetlocks—Wide, straight.....
36. Pasterns—Strong, sloping.....
37. Feet—Medium, even sized, straight; horn dense; frog large, elastic; bars strong; sole concave; heel wide, high.....
38. Legs—Viewed from behind, a perpendicular line from point of the buttock should fall upon the center of the hock, cannon, pastern and foot; from the side, a perpendicular line from the hip joint should fall upon the center of the foot and divide the gaskin in the middle; and a perpendicular line from the point of the buttock should run parallel with the line of the cannon.....
- ACTION:
39. Walk—Elastic, quick, balanced.....
40. Trot—Rapid, straight, regular, high.....
- Total.....

Mules.

1. Weight—900-1200 pounds; age.....
2. Height—14 hands and up; estimated.....
3. Conformation—Smooth, symmetrical.....
4. Quality—Bones clean; tendons defined; skin and hair fine.....
5. Action—Step smooth, long, active; trot rapid, straight, regular.....
6. Temperament—Energetic, good disposition.....
- HEAD AND NECK:
7. Head—Well defined; size medium.....

From Our Factory to Your Farm—For a Full Month's Approval Test—Freight Allowed—Sold For Cash or on Time Payments

We will send you a genuine American Manure Spreader and allow you a full month's approval test. You can use it on your own farm—shant cost you anything. You simply cannot afford to pass an opportunity of this kind—can you? Be sure and get our proposition and our Big, Free Spreader Book before you buy from anyone. This book describes and illustrates our entire line of American Spreaders—9 styles, 5 sizes—and quotes factory prices to you direct. This Book is a valuable guide in buying a Spreader—full of information for the practical farmer.

American Manure Spreaders

A Manure Spreader is a machine that must first be constructed on right principles—and then built thoroughly right to stand severe strain and hard, long wear and usage. The cheaper constructed machines may look good enough and work well enough at first—but will they stand up under the test of endurance? Too great care cannot be taken in selecting a Spreader right in the first place. The test of time is the test that tells whether you have saved or lost money on the Spreader you buy. Your guarantee against disappointment and loss is the known responsibility—reliability—and strength of the factory behind the Spreader you buy. The AMERICAN SPREADER is backed by a company whose name alone has been a guarantee for high quality and honest dealings for over 35 years.

ASK THE MAN WHO OWNS AN AMERICAN

—as to its general quality—correct principle of construction—perfection of work. Ask him what it saves him in time—what it makes for him year after year. Ask the man who owns an American how he's been treated in his dealings direct from the factory—in fact, ask the owner of an AMERICAN all about the American Spreader—and the factory that makes it—we'll stake our chances of selling you an American on his answer. If you do not know an owner of an American we'll gladly mail you a large list of purchasers to whom you may write. Will you let us send you our big Spreader book now? It's free—just send postal.

American Harrow Company
102 Hastings Street, Detroit, Michigan



J. G. PEPPARD BUYS AND SELLS

MILLET, CANE, KAFFIR, POPCORN, SEED CORN, ALFALFA, TIMOTHY, CLOVER AND ALL FIELD AND GRASS SEEDS

1101 to 117 West 8th, Near Santa Fe St., KANSAS CITY, MO.

8. Muzzle—Fine; nostrils large; lips thin and corresponding.....
9. Eyes—Full, bright, clear.....
10. Forehead—Flat, broad, full.....
11. Ears—Large, well carried, tapering.....
12. Neck—Muscle, crest high; throat latch defined; windpipe large.....
- FORE QUARTERS:
13. Shoulders—Long, sloping, well muscled.....
14. Arm—Short, muscled, thrown well forward and backward; forearm well muscled, long, wide.....
15. Knees—Wide, clean, straight, deep, well supported; cannons, short, wide; tendons well defined.....
16. Fetlocks—Wide, straight, strong; pasterns short, clean, straight, angle with ground 45 degrees.....
17. Feet—Size medium, even; horn dense; sole concave; bars strong; frog prominent, elastic; heel wide, high.....
18. Withers—Smooth, well muscled, continuous with neck and back.....
- BODY:
19. Chest—Deep, low; girth large.....
20. Ribs—Long, sprung, close.....
21. Back—Straight, short, well muscled.....
22. Loins—Wide, short, thick.....
23. Underline—Long; flank low.....
- HIND QUARTERS:
24. Hip—Smooth, wide, level; croup wide, muscular.....
25. Tail—Attached high, well carried.....
26. Thighs—Long, well muscled, open angled.....
27. Quarters—Heavily muscled, deep.....
28. Gaskin—Wide, muscled.....
29. Hocks—Wide, well defined, strongly supported, straight, cannons short, wide, tendons set back.....
30. Fetlocks—Wide, straight; pasterns, short, angle with ground 55 degrees.....
31. Feet—Medium size, even; horn dense; frog prominent, elastic; bars strong; sole concave; heel high, wide.....
- Total.....

Shetland Ponies.

1. Constitution—Constitution indicated by general healthy appearance, perfect respiration, brightness of eyes.....
2. Size—Ponies over four years old; 42 inches and under in height; two points to be deducted for every inch over 42 inches up to 46 inches, fractional portions to count as full inches. Ponies

BOWSER
(Sold with or without out elevator.)
Crush ear corn (with or without shuck) and grind all kinds of small grain and head kaffir. Use General Shape Grinders. Different from all others.
LIGHTEST RUNNING
Handy to operate. 7 sizes—5 to 25 h. p. One size for wind-wheel use.
Also make Sweep Grinders; both Geared and Plain.
C. N. P. Bowser Co.
SOUTH BEND, IND.
FEED MILLS

The Most Powerful Windmill in the World. There is more power in half the wheel to the wind than the old style mill fully in wind. This is an entirely new feature in windmills. More powerful and less parts than any
windmill on earth. Write for price list and catalog.
Atlas Manufacturing Co., Ottawa, Ka

3. Head—Head symmetrical, size proportionate to body, wide between the eyes, ears short and erect, jaw full and deep.....
4. Body—Barrel well rounded, back short and level, deep chested, good breast, compact, "pony build".....
5. Legs—Legs muscular, flat boned, hind legs not cow-hocked or too crooked.....
6. Mane and tail—Foretop, main and tail heavy.....
7. Feet—Good.....
- Total.....

Kokomo Woman Gives A Fortune

Receives Hundreds of Requests Daily.

In the past few years Mrs. Cora B. Miller has spent \$125,000 in giving medical treatment to afflicted women.

Some time ago we announced in the columns of this paper that she would send free treatment to every woman who suffered from female diseases or piles.

More than a million women have accepted this generous offer, and as Mrs. Miller is still receiving requests from thousands of women from all parts of the world, who have not yet used the remedy, she has decided to continue the offer for a while longer at least.

This is the simple, mild, and harmless preparation that has cured so many women in the privacy of their own homes after doctors and other remedies failed. It is especially prepared for the speedy and permanent cure of leucor-

rhea, or whitish discharges, ulceration, displacement or falling of the womb, profuse, scanty, or painful periods, uterine or ovarian tumors or growths; also pains in the head, back, and bowels, bearing down feelings, nervousness, creeping feeling up the spine, melancholy, desire to cry, hot flashes, weariness and piles from any cause, or no matter of how long standing.

Every woman sufferer, unable to find relief, who will write Mrs. Miller now, without delay, will receive by mail free of charge, a 50-cent box of this simple home remedy, also a book with explanatory illustrations showing why women suffer and how they can easily cure themselves at home without the aid of a physician.

Don't suffer another day, but write at once to Mrs. Cora B. Miller, 4328 Miller Building, Kokomo, Ind.

Field Notes

LIVE STOCK REPRESENTATIVES.

J. W. Johnson.....Kansas and Nebraska
L. K. Lewis.....Kansas and Oklahoma
Geo. E. Cole.....Missouri and Iowa

C. W. Merriam, owner of Alysedale Farm herd of Shorthorns, Topeka, has very recently sold a pure young Scotch bull to A. F. Kolterman, Onaga, and the richly bred bull, Roderick of Alysedale to E. Kolterman, of Onaga, Kans. Mr. Merriam has two more choice ones for sale.

We desire to call attention to the advertisement of J. F. Dayron, Nurseryman, of Waukon, Iowa, who has for twenty-eight years sold trees directly from the nursery to the planter, thereby saving to the purchaser the expense of the middleman. If you want good stock, at fair prices, write for his list. It's free.

The destruction of crops by pocket gophers, prairie dogs, ground squirrels, and the rattle in the farmers' granaries which are the fruits of his labor, runs into millions of dollars annually. For the destruction of these pests the Fort Dodge Chemical Company make a compressed tablet which is convenient and safe to handle and is pronounced by many State agricultural colleges to be effective. See their advertisement in this issue.

Dairy cows of unusual value will be sold in the Burton extraordinary public sale at the Topeka Fair Grounds on Tuesday, March 24, 1908. Mr. Burton is a reliable dairyman, experienced breeder, and an expert in selecting practical, profitable producers and performers. He spent three weeks in the east last fall selecting choice cows and heifers for the foundation of a great A. R. O. herd of Kansas Holsteins, but conditions are such now that these choice animals with other good Holsteins, Jerseys, and grades must be sold; not only the entire dairy stock, wagons, fixtures etc., but also his fine saddle stallions, mares, and fillies. See advertisement on page 351. For terms of sale and other information address G. G. Burton, Topeka, Kans.

Joseph M. Baier, of Elmo, Kans., who owns the Welcome herd of Poland-Chinas, makes an important change in his advertising card this week. Mr. Baier is the owner of Tom Lipton 116567 who is an eleven times winner at State fairs and is now at the head of the Welcome herd. He also owns Iron Clad 128687, who is a member of the \$13,160 litter. This boar is also a herd-header in the Welcome herd. Mr. Baier announces that he has about twenty Tom Lipton fall boars for sale. They are of the finest breeding and quality and he is going to make prices on them that will move them out of the way of the spring litters. The dams of these fall boars were sired by Corrector, Chief Perfection 2d, Prince Darkness, and one is a grandson of Meddler 2d. Read his advertising card and make known your wants.

Grant Chapin, owner of the Highland herd of Duroc-Jersey swine at Green, Kans., and who holds the proud record of having made the highest public sale average that has been made in Kansas in 1908 with his King of Colonels stock, now states that he has more of the same kind for sale. He is now ready to price spring gilts, fall yearlings and tried sows that were sired by such boars as Model Chief Again, Ohio Major, Fancy Chief, Fancy Top Notcher, and others. They have been bred for April and May farrow to Red Raven, C. E.'s Colonel 2d, Colossal, Woodlawn Prince, and other good ones. These animals will be sold privately so as to save the purchaser the expense of public sale. There are also a few choice fall boars at Highland that were sired by Model Chief Again, King of Colonels 2d and C. E.'s Colonel 2d that will go at bargain prices. Notice the change in Mr. Chapin's advertising card and get busy. Durocs of this quality will not remain unsold very long.

We wish to call our readers' attention to the patented galvanized iron poultry coop and woven wire runway, as advertised in this issue by the Ray Heater Manufacturing Company, of Lawrence, Kans. These coops are being welcomed by the best poultrymen and farmers throughout the country who have made a test of them. They are made of the best galvanized iron and woven wire, being over four feet in total length. These metal coops have innumerable advantages over wooden coops, such as protection against rats, skunks, weasels, and all kinds of chicken-feeding animals; proof against mites, as poultry people know they will not harbor in iron; absolute protection from the severest rain storms; if a floor is used they are only temporarily attached thereto, making it easy to keep them clean and also that the ventilation is complete inasmuch as it can be regulated to suit the conditions of the weather. We recommend that poultry people write the company for their catalogue, telling all about this coop along with their other poultry supplies.

Dear Ikey Boys: De-light-ed to tell you that 1908 will rain gold dollars to horsemen of push, nerve, and business "horse sense" enough to breed pure-bred or grade Percherons, Belgians and big Coachers. Ikey, get into the "money-making band wagon," they all lead to that "King of Horsemen" Frank Iams, St. Paul, Nebraska. He is hypnotizing buyers with more big "ton black boys," more imported stallions and mares of extra big bone and quality, more Illinois, Iowa, and Nebraska State prize winners, more sweepstakes stallions and mares and forty Paris and Brussels winners, "gold medal horses" than any individual importer and breed-



RIPE grain waits for no man. The loss of golden hours in the field means the loss of golden grain and the loss of golden profits.

So the profits that you make from your grain depend upon your harvesting machines.

Trouble and tinkering, breakdowns and delays through unreliable machines would mean the loss of time and money—would mean needless expense and worry.

You cannot afford to risk your profits on doubtful harvesting machines.

And there is no reason why you should.

Because you know the machines you can always depend upon.

Since the click of the first reaper—more than two hundred concerns have offered harvesting machines to the farmers.

Out of these two hundred and odd, over one hundred and ninety, up to the present time, have disappeared because their machines were not right.

This means that thousands of farmers tried such machines, lost money through them and condemned them.

Through these years of "testing" the farmers found the best and placed their greatest confidence in six machines.

You know the machines that have earned first place through this test of time.

And you know that the

**Champion, McCormick, Osborne,
Deering, Milwaukee, Plano,
Harvesting Machines**

hold their undisputedly supreme position today—

- Because they are right—
- Because they have always done the best work—
- Because they have always satisfied their users—

Because they have proved by many years of use that they can always be depended upon.

That is the reason (there can be no other) they have earned the approval of the farmers.

This means that they have withstood all the tests of all conditions of harvest fields everywhere.

It means that they are built on the right principles.

It means that, of the numberless types of harvesting machines put out in the years past, these embody the ideas that have been most successful in actual work.

It means that they are the net result of all the good that has been developed in a half century's experience and experiment and that there is no feature about them that is untried or experimental.

Today these machines are more popular than ever. This means that they have steadily led in improvements from year to year, thus holding the place they have established as the standard.

In order that these machines shall continue to be the best, the International Harvester Company pays more than \$350,000 a year to more than two hundred men in its Department of Improvements.

By working together the manufacturers are able to erect and maintain Experimental Shops and Laboratories to work out every principle and detail of harvesting machines, which would be far too costly for any one single manufacturer working alone.

Thus this company is able to discover and devise better methods of operation, better principles of construction so as to make these machines more efficient, more easily operated—better for you and better for your pocketbook.

This company and the interests it represents have spent many millions for improvements and no single manufacturer working independently could afford to pay even a fraction of the sum this company pays for the greatest inventive genius and the highest mechanical skill necessary to produce the most improved harvesting machines.

The demand for them is so great that it enables the International Harvester Company to own its own coal and iron mines, thus securing the best fuel and ore; its own iron and steel mills, thus producing the best iron and steel; and its own forests and saw mills, thus securing the best lumber.

For the same reason this company is able to select the best of all raw materials and maintain factories equipped with machinery of the highest type, manned by workmen of the greatest skill.

Thus this company is able to produce a quality of construction, which could not possibly be maintained to supply the comparatively small demand which would come to an individual manufacturer.

In materials, workmanship, design and mechanical principle, in every feature of construction, the International line has a potent reason for its superiority and the satisfaction it gives you.

Call on the International dealer and secure a catalog.

If you do not know an International dealer, write us, and we will be glad to give you the address of the one nearest you.

Equal in importance to a perfect machine is perfect twine. The most perfect twine made may be had in Champion, McCormick, Osborne, Deering, Milwaukee, Plano and International sisal, standard, manila, and pure manila brands.

INTERNATIONAL HARVESTER COMPANY OF AMERICA

(INCORPORATED)

Chicago,

U. S. A.

International Line:—Binders, Reapers, Headers, Header-Binders, Corn Binders, Corn Shockers, Corn Pickers, Huskers and Shredders, Corn Shellers, Mowers, Hay Tedders, Hay Rakes, Sweep Rakes, Hay Loaders, Hay Stackers, Hay Bales, Feed Grinders, Knife Grinders, Cream Separators, Gasoline Engines, Pumping Jacks, Manure Spreaders, Weber Wagons, Columbus Wagons, New Bettendorf Wagons and Steel King Wagons, and Binder Twine.



er in United States. Iams "Peaches and Cream" stallions and mares are known the world over as "par excellence," the "best ever." Iams is pushing competitors off the Christmas tree making "special panic prices" at his barns and showing the best lot of big draft and coach stallions in America. Iams' \$1,000 and \$1,500 imported stallions are kings in a bunch of good ones. Iams will positively show you more imported mortgage lifters in stallions and mares at his "town of barns" than can be seen at any one individual owners barns in the United States, for "money or chalk" all in "show shape." His "horse plant" is compared to an immense department store where a boy or a lady can buy as cheap as a man. Iams is the "square deal" horseman. That's why his business is so big today. Iams is "pushin and a shovin" high prices on stallions off the Christmas tree. He is "Johnny on the spot."

If you are going to build a house, repair or improve your old one, send for our large Catalogue of

Building Material

In buying your materials from different local dealers a large profit is paid on each line of goods bought. By the time the house is finished, the cost is much greater than anticipated. Isn't that usually the case?

You need not pay more than the right prices and yet put into your house materials of dependable quality—Ward quality—if you buy all of your materials of one concern and of one department, **Montgomery Ward & Co.'s Building Material Division.** You pay but one small profit on the whole lot, instead of a good profit to each dealer on the many lines. You might as well buy at the prices your dealers pay as to let them buy for you and each one get a good profit for so doing.

Consider these advantages in buying **Mill Work, Builders' Hardware, Roofing, Montgomery Ward & Co.,** Michigan Ave., Madison and Washington Streets **CHICAGO**

Metal Ceilings, Paints, Oils, Varnishes, Heating Goods, Plumbing Goods, Electric Supplies, Lighting Fixtures, Mantels, Grates, etc.

Our **Building Material Catalogue** contains 112 pages, is fully illustrated and is a book every farmer, planter, ranchman house owner and contractor and builder should have. No other book shows such large variety of so many lines for the user to buy from.

Our terms are liberal. We know by helping you to save money on your building we will make a steady customer of you.

Save extra profits, unnecessary annoyances and delays.

Get this book. Send for it right now. It will mean dollars saved and a better home, or building, for you. Write

He "butts in" and sells "top notchers" at less money than any competitor. Iams does not hire fifty salesmen. He "gets busy" himself and sells more horses than any ten men in United States. If you visit Iams you will buy a stallion. He has "the goods" and they will positively all be sold, "panic or no panic." Ikey boys, put your "real money" your bank deposits in a "Peaches and Cream" stallion and a pair of imported mares. They will make you more easy money than a farm and be good for twenty years, and it will likely save your bank account.

Iams' "town of barns" are filled to the roof with new, fresh importation of 160 Percheron, Belgian, and Coach stallions and mares, 2 to 6 years old, weighing 1,700 to 2,500 pounds, 90 per cent blacks. "100 ton" French and Belgian stallions and mares that you can save \$1,000 each on, and better horses. Fifty 1907 Nebraska State prize-winners. Iams sells his "show horses" annually. He buys new and better ones each year. For twenty-six years, Iams has been "bumping the heads" of the "gold-brick stallion salesmen with better and larger stallions, forcing the importer and breeder with inferior stallions and mares, to sell them on the "auction block." Iams guarantees to sell you a better stallion at \$1,000 and \$1,400, (few little higher) than are sold to farmers' stock companies at from \$2,500 to \$5,000. If you don't find this so you can have the \$500 Iams hangs up. "It's not because your eyes are blue" that Iams tells you of money he will save you. He wants your business—that's why he advertises. He wants you to smile on him with a visit. He will make the "wheels of business" go round. Iams can place \$1,500 insurance on his stallions. He is an easy man to do business with, and his horses are so good they sell themselves.

You say, "Why can Iams sell better Iams buys and sells every stallion himself at his home barns. He buys stallions by "special train load," 100 to 200 at a time. He speaks the language, saving 20 per cent. He is not in the stallion trust, saving you \$300. He pays no "slick salesman" \$1,000 to sell you a fourth-rate stallion. He has no two to ten men as partners to share profits with. He pays spot cash for his stallions, owns his farms, houses, barns, stocks, and stallions. He sells stallions by "hot advertising." Iams will save you \$1,000 or more in commissions and middlemen's profits. All of Iams' "show horses" are for sale. None reserved. You won't get away from Iams with money or bankable notes. He has his "selling clothes" on. Write for Iams 1908 "Million Dollar" catalogue and eye-opener, showing 100 out of 200 stallions and mares in his barns that must positively be sold, "panic or no panic." Our illustration is Iams Vollmeier (64126), 4-year-old black Percheron stallion, weight 2,100 pounds. A king among Percherons. Try Iams; he is the man "behind the dough."

A Great Jack Sale at Smithton, Mo.

The jack and jennet sale at Smithton, Mo., on Tuesday of last week was one of the greatest events of its kind in the history of Lime Stone Valley Farm.

The sale has been well advertised and the reputation of Messrs. Monsees for strictly high-class stuff brought buyers from many States. It was one of the largest gatherings ever assembled on this farm.

D. J. Hutchins, of Sterling, Kans., topped the sale, purchasing the jack, High Tide, at \$2,030, the highest price ever paid for a jack at auction.

The average on twenty-five jacks was \$820.40 and twenty-two jennets sold to an average of \$163.18.

Colonels Harriman and Sparks officiated on the block and were assisted in the ring by Colonels Snyder, Heironymus Bros., and Harrison.

In our report of the sales given herewith it will be seen that these animals went to six different States. Missouri, being the home State, took the largest number, of course. To Kansas, however, belongs the honor of buying the highest quality offered as well as making the highest average. The purchases of jacks only when arranged by States show as follows:

State.	No.	Total.	Average.
Kansas.	3	\$3,680	\$1,226.66
Missouri.	11	7,900	900.00
Illinois.	5	3,745	749.00
Nebraska.	3	1,855	618.33
Oklahoma.	2	900	450.00
Texas.	1	430	430.00
Totals.	25	\$20,510	\$820.40

The sales in detail were as follows:

1. High Tide 1564, D. J. Hutchins, Sterling, Kans.	\$2,030
2. The Admiral 1037, J. B. Findley, Hustonia, Mo.	1,200
3. Black Eagle 1565, W. T. Mitchell, La Belle, Mo.	935
4. Professor 1408, W. F. Strathelie, Rushville, Neb.	1,060
5. Dietzel's Perfection 1574, T. L. T. Jones, Camden Point, Mo.	900
6. Floyd's Taxpayer 1571, Henry Cole, Vandalia, Mo.	850
7. Tennessee Star 1572, W. E. Parsons, Carso, Mo.	785
8. Zay Dock 1278, Luke Emerson, Bowling Green, Mo.	1,000
9. Young Taxpayer 1569, D. C. Ellis, Pittsfield, Ill.	740
10. Silver King, Herman Wempen, Mowequa, Ill.	900
11. Black Badger 1567, H. F. Jassmer, Plattsmouth, Neb.	470
12. Young Wonder 1570, A. T. Ayers, Howard, Kans.	650
13. King Walker 1298, J. W. Devine, Pallace, Okla.	525
14. Long Tom Jr. 1573, W. E. Parsons.	580
15. Victor Hugo 1576, C. P. McCormick, Homa, Tex.	430
16. Burbank 5024, O. A. J. R. E. F. Proster, Cambridge, Neb.	300
17. General Nelson 597, W. H. Ritter, Colfax, Ill.	1,235
18. Oblion 1431, Ed. Bowen, Lawson, Mo.	475
19. Young Chief 471, A. F. Gilley, Kearney, Okla.	375
20. Prince Jumbo, G. L. Levitt, Wilson, Kans.	1,000
21. Gold Bug, W. H. Williams,	

Greenup, Ill.	605
22. Hero, Joe Maackler, Sweet Springs, Mo.	400
23. Lion Prince, F. Palmer, Wagner, Ill.	230
24. Clark's Mammoth, F. Palmer.	265
25. Boston 597, Ed. Bowen.	900
26. Burk G. C. Roan, Ethel, Mo.	1,405
27. Big Prince 10149, L. G. Tiler, Clinton, Mo.	800
28. Gray Chief, Luke Emerson.	705
29. Black Chief, W. E. Parsons.	600
30. Black Don 1210, A. J. Thomas, Pleasanton, Kans.	715
31. Young Giant, W. E. Parsons.	645
32. Starlight, W. F. Strothelie, Rushville, Neb.	675

JENNETS.

1. Star 442, J. L. Monsees, Smithton, Mo.	320
3. Minnie McSpadden 812, W. L. Crouch, Sedalia, Mo.	225
4. Miss Alexander Sampson 970, Tom Spradgrass, Windsor, Mo.	160
5. Pearl Mammoth 968, J. L. Monsees.	235
6. Del Smock 967, W. S. Corsa, Whitehall, Ill.	200
7. Lady Macon 966, J. L. Monsees	185
8. Black Dinah 317, E. B. Quisenberry, Sedalia, Mo.	120
9. McDonald 973, Frank Palmer.	150
11. Bessie Grist 4th 800, W. J. Crouch.	130
12. Lady T. 795, Luke Emerson, Bowling Green, Mo.	225
13. Flossie, A. T. Ayers.	150
10. Lady McDonald 2d 972, Ed. Bowen.	190
14. Lucy Mammoth, James Hutchins, Jefferson City, Mo.	75
14½. Colt from Lucy Mammoth, J. L. Monsees.	80
15. Lady Irwin 414, D. C. Ellis, Pittsfield, Ill.	115
16. Nelly Bright, Walter Petty, Sedalia, Mo.	125
17. Pearl Style, A. T. Ayers.	150
18. Miss Style, W. E. Parsons.	100
19. Lady Hawks, J. Hutchins.	130
20. Cora Mings, A. T. Ayers.	130
21. Princess, Ed. Bowen.	240
22. Black Princess, James Hutchins.	65
23. Belle Nero, J. L. Monsees.	175

Alfred's Sale Low.

The sale of Duroc-Jersey swine made by S. W. Alfred & Son, of Sharon, Kans., on Tuesday, February 18, was made up of one of the good offerings of the year. They were, however, very unfortunate in meeting weather conditions and train service which proved disastrous.

The sale day was a very stormy one of such severity that the sale tent was blown down, and a train was derailed on the railroad which served to block the traffic and prevent buyers from arriving until long after the sale. Those who were present braved the storm and came in private conveyances. Owing to the very small attendance only a part of the animals catalogued were sold. Twenty-two head were sold at an average price of near \$40, which, under the poor weather and other conditions under which the sale was held, would seem to prove that these hogs were very much above the average.

The top of the sale was brought by Gold Dust Maid, who was No. 5 in the catalogue and who went to S. F. Bowman, of Sharon, for \$102.50. She was an outstanding yearling and was considered cheap at the price. Another bargain was the 700-pound yearling Lady Sharon, who went to J. B. Beall, Nashville, Okla., for the bargain price of \$80. The sale was as follows:

1. C. H. Hyde, Alva, Okla.	\$45.00
2. S. Fullerton, Hazelton, Kans.	31.00
3. W. H. Huffaker, Sharon, Kan.	31.00
6. F. S. Bowman, Sharon, Kans.	102.50
7. J. P. Beall, Nashville, Okla.	80.00
7. Ed. Cooke, Freeport, Kans.	52.50
8. L. D. Mason, Kiowa, Kans.	40.00
9. J. Stollebarger, Sharon, Kans.	37.00
10. J. A. Tosh, Fort, Okla.	38.00
12. I. D. Mason, Kiowa, Kans.	32.50
14. F. S. Bowman.	51.00
16. B. F. Porter, Mayfield, Kans.	31.00
20. C. H. Hyde.	37.00
21. J. Stollebarger.	31.00
25. C. S. Crumppacker, Medicine Lodge, Kans.	25.00
26. W. H. Huffaker.	20.00
27. Albert Rush.	24.00
31. C. H. Hyde.	25.00
32. G. E. Binkley, Potter, Kans.	40.00
47. Edward Cooke.	20.00

H. W. Steinmeyer Sells Durocs.

H. W. Steinmeyer, proprietor of the Egypt Valley Herd of Durocs, sold a consignment of bred sows and gilts to an enthusiastic crowd of breeders and farmers, Tuesday, March 3. The sale was held at his farm near Volland, Kans., and was well attended by farmers and breeders from that vicinity, and there were also breeders present from quite a distance.

Mr. Steinmeyer's offering was made up almost entirely of fall and winter yearling gilts, and tried sows of good ages, bred to Egypt Lad, a grandson of Ohio Chief; Jumbo Kant Be Beat, a grandson of Kant Be Beat, and Golden Promise, a grandson of Golden Rule. They were a good, useful lot, fitted not for show but for service, and we predict that they will do their buyers good.

Prices did not rule high but the bidding was spirited and thirty-five head was sold in about two hours by Colonels Brady and Channel at an average of nearly \$23. The top of the sale was a fine fall yearling gilt by Egypt Lad and out of Miss Top Notcher, by Royal Top Notcher. She was sold with a fine litter of pigs at foot, to U. S. Frank, of Alma, Kans., for \$80.

Following is a list of sales of \$23 and over:

1. E. L. Gephart, Leona, Kans.	\$35
3. H. Hesse, Halifax, Kans.	25
4. W. Schuler, Alma, Kans.	26
19. H. Hesse.	20
20. E. M. Dahlson, McPherson, Kans.	20
23. Fred Steinmeyer, Volland, Kans.	21
24. W. R. Brady, Alta Vista, Kans.	21
25. E. L. Gephart.	25
26. E. L. Gephart.	26
27. H. Giddings, Alma, Kans.	21
28. U. S. Frank, Alma, Kans.	20
29. Geo. Echert, Alta Vista, Kans.	21
30. H. Hesse.	27
31. H. Hesse.	25
Extra. E. M. Dahlson.	20
32. Pete Blocker, Richland, Kans.	30
33. Fred Rehart, Volland, Kans.	22
34. Geo. Rehart.	23

CONGO

Congo on Dye House, Cumberland, Md.

NEVER LEAK ROOFING

Do any of your buildings need roofing? If they do, let us send you a sample of Congo Roofing. We call it the "Never-Leak" Ready Roofing, it is so perfectly made and so thoroughly tested. And not only is it free from leaks, but it will not rot, or shrink, or change its condition, no matter what the climate or weather.

FREE SAMPLE

Write for a sample—that's the best way; and remember, Congo Samples are not special pieces prepared for the purpose, but are cut from our regular stock.

We mention this because Congo is so attractive looking, so tough and pliable, that people sometimes think the samples must be specially prepared.

UNITED ROOFING & MFG. CO.

(Successors to Buchanan-Foster Co.)

537 WEST END TRUST BLDG., PHILADELPHIA, PA.
CHICAGO
SAN FRANCISCO

PUBLIC SALE, At Fair Grounds, Topeka TUESDAY, MARCH 24, 1908.

38—Registered A. R. O. and High Grade Dairy Cows and Heifers, Holsteins, Jerseys, Shorthorns, 2 Holstein Bulls, 2 Jersey Bulls—38
10—Registered and High Grade Saddle and Harness Horses, Mares and Fillies—10



Grand Superior 1607.

Montrose—Black Squirrel Stallion. Send for description and pedigree.

Two young cows in this sale have average daily OFFICIAL RECORDS as follows: 2 years old, 4,884 gals. milk, 1,502 lbs. butter; 3-year-old, 8,589 gals. milk, 2,507 lbs. butter. Full age A. R. O. cows have still

better records. Others equally good not yet officially tested.

TERMS—Cash, or acceptable note payable within 9 months.

G. G. BURTON,

Topeka, - - Kans.

Auctioneers—Cols. C. M. Crews and J. M. Pollom.



Bargains In Imported Stallions

Watson, Woods Bros. & Kelly Co., of Lincoln, Neb.,



the largest Western Importers of Percheron, Belgian and Shire stallions, will make special inducements for the next thirty days. This offering includes one entire importation which we purchased during the November panic, and which up to March 10 have never been shown to buyers. We will guarantee to show you a string of fifty stallions that can not be duplicated in the United States. An early inspection of our horses and prices will convince you.

WHEN WRITING OUR ADVERTISERS PLEASE MENTION THIS PAPER.



Clip Your Horses this Spring

Don't put your horses at the hard spring work before clipping off the long, thick winter coat. Unclipped horses sweat much, dry out slowly and are liable to all kinds of cold, pneumonia, etc., from standing in a long, wet coat during chilly spring nights. Clipped horses dry out quickly, rest well and their food does them good. They can be cleaned in a quarter of the time. *They look better, feel better and do better work.*

Progressive Farmers and Horseowners Everywhere all Clip in the Spring This Splendid Stewart No. 1 Clipping Machine

is unquestionably the most perfect clipping machine ever made at any price. The gears are all cut from the solid steel bar, are file hard and completely enclosed. They run in an oil bath and will practically never wear out. So well is this machine made, and of such high grade materials, that **WE GUARANTEE IT FOR 25 YEARS** against all defects of workmanship or materials.

Clip Boys' and Men's Hair with this Machine, too. It does it easily, quickly and well. Save the \$1.50 to \$3.00 that you pay for hand clippers. Make the price of the machine by clipping for others. **Shear Your Sheep with it,** using our special shearing shaft and knife. It gets 20 cents worth and up more wool from each sheep than by hand shears. Send for our **free book**, "How to Shear Sheep."

Our Special Offer: Get one of these machines from your dealer. If he hasn't it, send direct to us. When you get it clip your horses with it and clip the hair of all the boys and men about your place; compare it in every way with all other clipping machines you ever heard of, and if it doesn't do better work and prove better in every way, send it back and get every cent you paid out. Get one of these machines from your dealer now. If he hasn't it send \$2 direct to us and we will ship C. O. D. for balance. Write for our big new 1908 Catalog of clipping and shearing machines. Write today and ask for Catalog No. 24C.

\$6.75
Comes at **ONLY**



Sutton's Good Berkshire Sale.

A total of \$2,537.50; an average of \$72.50 with a top of \$330 tells the story of C. E. Sutton's successful Berkshire sale which was held at Sutton Farm, Lawrence, Kans., Wednesday, March 4. The sale was reasonably well attended by breeders from a distance, but the inclement weather prevented local buyers from being present in numbers. Mr. Sutton is to be congratulated on the quality of his offering, which is one of the best that we have seen pass through the sale ring this year. Every

Robin Hood Black Girl D 2d 102835, State Agricultural College, Manhattan, Kans.	65.00
Royals Jewell, State Penitentiary, Lansing, Kans.	75.00
Ada Duke 2d 99208, J. S. Miller, Ottawa, Kans.	52.50
Dukes Queen 106853, M. D. Hyde, Fargo, Kans.	45.00
Gilmald Princess, W. S. Corsa, Ill.	100.00
Litter of five gilts by Wakarusa Dimple 95139, Wm. Frick, Randolph, Mo.	120.00
Rutger Lee 15th 787, W. H.	

He was in four first-prize herds at the same fair. His sire was first in class at the World's Fair and in four first-prize herds in the same ring. His dam and grandam are both State fair winners, as are his grand sires, O'Ryan 2d and High Chief. Another extra herd boar is Fancy Top Notcher 40339, a son of Kant Be Beat and out of Top Notcher Lass. The record behind this hog is good enough. If you want a little Missouri Wonder blood the next herd boar, Prince Wonder 42455, will furnish it. He is a brother of Kansas Wonder and

The offering was in good condition and were a good lot of animals and were in strong demand from the buyers at the ring side. M. H. Roler, of Centerville, Kans., topped the sale in the purchase of Lafayette Clermont, at \$1,055. Colonels Harriman and Sparks conducted the sale with the assistance of Colonels Heironymus Bros., Logsdon, and Irving. Below we give a list of the sales:
1. M. H. Roler, Centerville, Kan., \$1,055
2. J. Barton, Odessa, Mo., 800



Panoramic view of Sutton Farm at Lawrence, Kans., where the big Black Robin Hood sale of Berkshires was held on Wednesday, March 4, 1908. Owned by Charles E. Sutton.

animal was a good one, and all were presented in the pink of condition. Most of the young things in the sale were well grown fall and winter yearlings, these were mostly mated to Berrington Duke Jr., who is proving himself a remarkable sire.

Mr. Sutton's offering was well received and the bidding was spirited on a number of animals. The top of the sale was College Matron 3d, a beautiful summer yearling gilt by the great Star Masterpiece, was bought by W. S. Corsa of Whitehall, Ill., for \$330. W. J. Grist of Osawatie, Kans., paid \$200 for Baroness Queen by Baron Masterpiece.

Colonel Holman did the selling in his usual effective manner.	
Following is a complete list of sales:	
College Matron 3d 102047, W. C. Corsa, Whitehall, Ill.	\$330.00
Elizabeth Masterpiece A 266th 105321, W. J. Grist, Osawatie, Kans.	110.00
Premier Duchess S 103485, Man-waring Bros., Lawrence Kans.	75.00
Premier Duchess 2d 103486, McCurdy & Downs, Hutchinson, Kans.	50.00
Baroness Queen, W. J. Grist.	200.00
Daneshield Duchess 2d 102054, W. J. Grist.	75.00
College Blossom 102513, I. C. Flory, Lone Star, Kans.	57.50
College Martha 3d 82090, C. H. Wolf, Cheeney, Kans.	40.00
Martha Brummel 2d 82095, J. M. Neilson, Marysville, Kans.	80.00
Beau Blossom 103537, J. M. Neilson.	62.50
College Martha 5th 102519, E. J. Barker, Thornton, Ind.	85.00
Kansas Jewell 2d, John Tudhope, Linwood, Kans.	37.50
Lady Perfection 2d 120057, C. E. Sutton, Lawrence, Kans.	62.50
Lody P. 2d 1000287, A. J. Flory.	52.50
Princess B 105127, McAdam Bros., Holton, Kans.	70.00
Royals Stumpy, F. F. Guthrie, Strong City, Kans.	40.00
Highclere Lady S 105028, John Tudhope.	60.00
Maple Queen 2d 98926, T. F. Guthrie.	75.00
Miss Royal Robin Hood 2d 102062, W. J. Grist.	57.50
College Martha 7th, E. B. Moore, Charlottesville, N. C.	47.50
Loretta B 104791, G. A. Murphy, Perkins, Calif.	40.00
Robin Hood Baroness, J. O. Van Tuyl, Vassar, Kans.	55.00

Rhodes, Manhattan, Kans.	42.50
Rutger Dimple S, W. H. Rhodes.	42.50
Wakarusa Lee 103544, J. S. Walker, Horton, Kans.	30.00
Wakarusa Belle, A. L. Stanton, Lawrence, Kans.	50.00
Miss Robin Belle 102060, J. K. King, Marshall, Mo.	75.00
Robin Hood's Highclere 2d 102064, C. G. Nash, Eskridge, Kans.	42.50
Premier Duke S, J. F. Miller.	27.50

The John W. Jones Sale of Duroc-Jerseys.

On Tuesday, March 17, at Concordia, Kans., John W. Jones & Son will hold another of their great bred-sow sales. This sale will be held in a sale pavilion that can be heated if the weather is inclement. The famous fancy herd of Duroc-Jerseys has made a great reputation in the West, and among the reasons for this is the quality of the herd boars that have always been used here.

Fancy Chief 24923 is one of the best of the famous Ohio Chief's sons. As Ohio Chief is dead his sons are always in demand and command a high price. Fancy Chief has been used at Wood-lawn for a good many years and he has made good every year. Shorty O'Ryan 53341N, 1725A is a wonder. He was first in class at the Illinois State Fair.

American Royal, now owned by Chester Thomas.

There are twenty-nine animals catalogued for this sale. They were sired by these boars and other good ones. The offering is in good shape and the owner thinks that this is the best offering that he has made at any sale this spring. It will be remembered that he announced a sale for February 18 at Concordia, but met with bad weather. He then held a sale at Emporia, March 10, and now has reserved the tops for this sale, which will be held at his home town. Col. Judd McGowan and Col. G. B. Van Landingham will handle this sale, and if you find you can not attend, J. W. Johnson of THE KANSAS FARMER will take care of your bids. Remember that the date of the J. W. Jones sale of Duroc-Jersey bred sows at Concordia, Kans., is Tuesday, March 17, and that on the next day, Wednesday, March 18, T. P. Teagarden will hold his bred-sow sale at Wayne, and you are invited to both. The railroad facilities are excellent.

Finley's Good Jack Sale.

W. J. Finley, the jack breeder of Higginsville, Mo., held his second annual jack sale at the fair grounds in Higginsville, Mo., on Monday, March 2. There were a large number of jack men in attendance from several States.

3. Wm. Fry, Tipton, Mo.	630
4. Moore Bros., Bunceton, Mo.	405
5. L. B. Shepherd, Kinkaid, Kans.	500
6. J. W. Martin, Odessa, Mo.	900
7. J. M. Clark, Fairmont, Okla.	600
8. Ed. Warren, Licking, Mo.	400
9. Ora Jenkins, Belvue, Kans.	355
10. Al Patten, Marshall, Mo.	325
11. Ed. Warren	350
12. Ed. Warren	300
14. Frank Stewart, Lexington, Mo.	405
16. J. M. Hanley, Aulville, Mo.	565
18. W. E. Lamb, Burr Oak, Kans.	505
19. W. M. Hackley, Higginsville, Mo.	500

The Teagarden Bred-Sow Sale.

On another page will be found a handsome display advertisement of T. P. Teagarden's Duroc-Jersey bred-sow sale, which will be held at his farm near Wayne, Kans., on Wednesday, March 18. This sale will immediately follow the sale of John W. Jones & Son at Concordia, and breeders can attend both sales as the railroad facilities are excellent. Mr. Teagarden will offer forty head consisting of five tried sows, three fall yearlings, and thirty-two spring gilts. Ten or twelve of these will have litters at side on sale day.

The fieldman and others who have seen this offering pronounce it the best



I Am the Paint Man

2 Full Gallons Free to Try—3 Months Time to Pay
You Pay No Freight to Try My Paint

I have a new way of manufacturing and selling house paint that's unique—that's better. Before my plan Paint was sold in two ways—either ready-made—or mixed by a local painter. Both these ways are at fault. Ready-Made Paint settles hard in cans—and mineral pigments and chemical acting driers in ready-made paint eat the life out of Linseed Oil—which is the LIFE of all paint. Painter-Made Paint can never be properly

made by a painter—because of lack of heavy mixing and grinding machinery. My Paint is ready to use—but not ready-made. My Paint is made to order—after the order is received—packed in hermetically sealed cans—(extra size to insure a full gallon) and dated the day the Paint is made. Pure Linseed Oil and pure, fresh paint ingredients are used in my Paint. Such materials, found at local stores, are usually adulterated. I sell my Paint direct from factory to user—at very low factory prices. I pay freight on six-gallon orders or over. When the order of six gallons or over is received, use two full gallons to test it—and if you are not perfectly satisfied, in every particular, return the balance of the order to me—and the two gallons you have used shall not cost you a penny.

No other paintmaker offers such a liberal proposition. My Paint is sold to responsible people on three months' time, if desired. I make three brands of Paint to suit the requirements of my immense trade. My strictly Pure All White Lead Paint is absolutely the best paint in the world. My 40-60 Brand Zinc and Lead Paint is the best paint in its class on the market. My Durability Paint has an immense sale everywhere, and is sold under five-year iron-clad guarantee. The Purity of my Paint is guaranteed under a forfeit of \$100.00 in gold. Send for my beautiful Paint Book and big Color Cards to select from—best Book—largest Cards ever published. They are FREE. With the Paint Book I send Free Book of all kinds of Painters' Supplies, sold at Direct-to-you Prices. Write TODAY. My Plan insures you Satisfaction and lowest prices on Paint.

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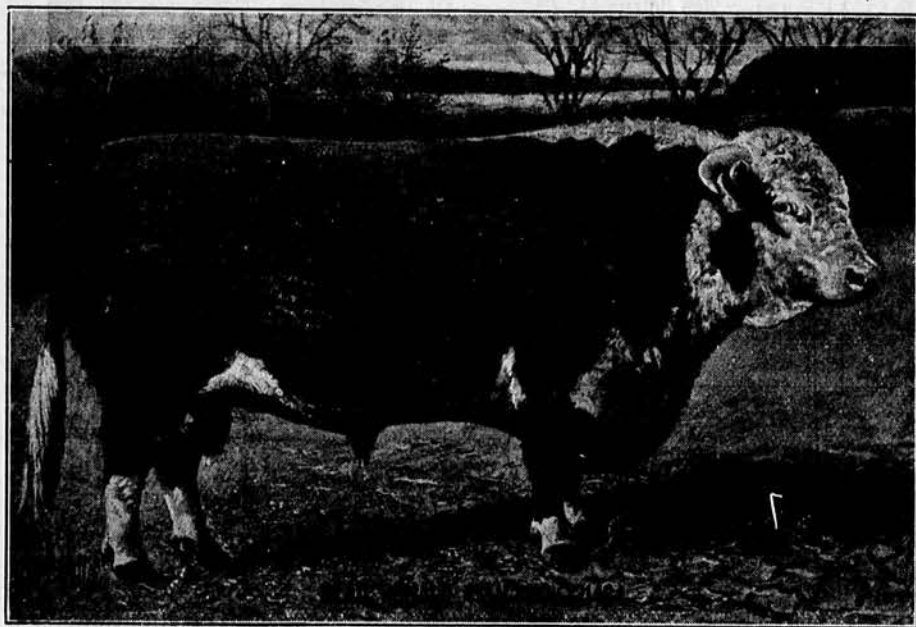
that has ever been made by Mr. Teagarden. This is saying a good deal as Mr. Teagarden has won a reputation for the quality and growthiness of his Durocs of which he has reason to be proud. Everything is arranged for the comfort of breeders, and the sale will be in charge of Col. John Brennan, who knows just exactly how. If you can not possibly get to these sales send your bid to THE KANSAS FARMER fieldman, J. W. Johnson, in care of Mr. Teagarden.

Three Days Hereford Sale at Kansas City.

March 26, 27, and 28 are dates announced for the big annual sale of Hereford cattle at the fine stock pavilion in Kansas City, Mo., under the management of Dr. Thornton.

Some of the most representative breeders of Herefords are consigning to this sale and this should be sufficient guarantee that the offering will be a strictly high-class lot.

There will be one hundred bulls and fifty cows and heifers included in the sale contributed by the following well known breeders: C. W. Armour, S. L. Standish, Gabbert and Son, C. N. Moore, J. W. Lenox, W. A. Dallmeyer, Jas. A. Gibson, R. T. Thornton, Funkhouser Estate, Clarence Dean, Cornish and Pat-



Consigned by W. A. Dallmeyer, Jefferson City, Mo., to Kansas City Hereford Sale

ton, T. W. Carmichael, Makin Bros. Scott and March, and Egger Hereford Cattle Company.

In this sale you will be afforded the opportunity to buy a lot of meritorious cattle at your own price.

Much preparation is being made by the men interested in this sale to make it one of the best attractions of the season.

More will be said in another issue of this paper as to the individual consignments.

A Big Draft of Aberdeen-Angus Cattle, The World's Best Producers from the Oldest Herd of the Breed in the United States, and others to be Auctioned at Wichita, Kans., March 25.

Thirty-two head of high-class males and females from Anderson & Findlay's famous herd of Allendale Angus cattle, are included, also some fine representatives from F. E. Shackelford's herd at Wellford, Kans., in the big Aberdeen-Angus auction at Wichita, Kans., on Wednesday, March 25.

This piece of information is of material value to those who contemplate embarking in the cattle breeding industry, or to those already who desire to replenish and strengthen their herds with the best material from imported stock, and at the minimum expense.

For a few hundred dollars a small herd of prolific breeding cattle with National standing as beef producers can be purchased at this sale, and with proper care and the natural increase will be worth thousands of dollars within a very few years.

This statement is true of most breeds, but especially true of the Angus cattle which have been tried and tested, and have proved their superior beef-producing qualities by topping the Christmas markets of the United States for fourteen years, and winning the majority of the championship prizes over all breeds at the International Fat Stock Show, a large part of this time.

Messrs Anderson & Findlay imported the first herd of Angus cattle into the United States in 1878, and during this time and since then, have maintained a resident representative in Scotland, with years of experience, who has made personal selections from the herds of the late Queen Victoria, Ballindalloch, Aberlour and other leading herds of that country, which they have imported from time to time, until the Allendale herd has become to be known, as one of the largest, and strongest herds in America.

This grand consignment at Wichita includes a big lot of young females well along with calf to the leading sires at the farm and also some with calves at foot, and there are fifteen choice young bulls included in the sale, that are fashionably bred and just ready to go to work, included with them are several fine representatives from the herd of Mr. F. E. Shackelford, Wellford, Kans.

Many of the best families of the breed are represented, including Queen Mothers, Ericas, Prides, Coquettes, Fyvie Flowers, Brucehill Violets, Wester Fowls Susans, Westertown Roses, Beauty of Garlines, Lazys, Bloomers, Walnuts, Jessicas, Pilgair Mayflowers, Glenbarry Victorias, Campfield Rubys etc., etc., and sired by such well known and highly bred sires as Imported Pa-

cific, Imported Conqueror of Aberlour, Imported Elberfeld, Imported Monitor of Glamis, Black Aristocrat, Eulalles Eric and others of similar note. No such variety of high class breeding has been offered in the southwest in recent years, representing an opportunity of unusual importance to secure rare bargains at auction prices, as they must be sold regardless of price, to make room for the natural increase of the herd, and it is to be hoped that the breeders, farmers, and range men of the southwest will encourage this sale by their presence.

Catalogues are now ready containing full descriptions, which will be cheerfully forwarded upon application to D. R. Mills, sale manager, Des Moines, Iowa.

Pellet's Red Polls.

On another page of this issue we are starting the card of H. L. Pellet, of Eudora, Kans., who has one of the largest and best herds of Red Polled cattle in the State. His herd at the present time numbers more than ninety head—forty-five of these are females of breeding age, and the rest are young things—bulls and heifers.

Mr. Pellet's herd is headed by Billie Boy 13311; he is by Chancellor 7917; his

dam is Buhla by Volunteer, he by Falsetto. Billie Boy is a very smooth individual with plenty of scale, and is proving an excellent sire, all of his calves having plenty of size, bone, and finish with extra good backs and very fancy heads.

The females in the herd are noted for their size and extra milking qualities. They also have plenty of finish, and mated to Billie Boy they are producing some very fine calves.

In Mr. Pellet's herd are cows from such prominent Red Polled breeders as V. T. Hill, Delaware, Ohio; John F. Doebler, Girard, Pa.; D. F. VanBuskirk, Blue Mound, Kans.; and others. Some of the cows of which we will make particular mention are Red Rose and Coey by Corporal, Red Beauty by Locust, Pat by Iowa Davidson, Battersea by Patriarch, Eudora by Red Duke, Mollie by Sexton, and several very fine individuals by Burt, a sire of great scale and quality who preceded Billie Boy as head of the herd. These are all choice individuals, and heavy milkers, and are among the best-producing cows in the herd.

Mr. Pellet is offering for sale thirteen extra good young bulls ranging in age from 6 months to 2 years old. Only one of these is 2 years old, 2 of them are yearlings, and the rest are calves from 6 to 10 months old. All but one are by Billie Boy, and they are a choice lot with size, bone, and quality good, strong backs, and extra good lines.

Mr. Pellet is also offering for sale a few choice cows of good ages, and known producing qualities.

The Red Polled cattle are here to stay and are constantly increasing because of the demand for them. Their dual-purpose character, fine uniform color, and absence of horns makes them an ideal animal for the farm, for they are equally valuable for the dairy and feed lot.

Look up Mr. Pellet's card in THE KANSAS FARMER and write him for prices on these young bulls, and buy something that will improve your herd. In writing, please mention this paper.

Duroc Honors for Kansas.

Mr. J. B. Davis of Fairview, Kans., owner of the Fairview herds of Duroc-Jersey swine and Red Polled cattle broke all sale records for his breed of swine when he attended the Morton & Speake sale at Dayton, Ohio, last week and paid \$2,750 for a sow. This sow is Ohio Chief's granddaughter 33086A and is the dam of King of Colonels 2d, now at the head of the Highland herd owned by Mr. Grant Chapin of Green, Kans., who had the distinction of having the highest average price that was made in any Kansas Duroc sale in 1908.

Ohio Chief's granddaughter was sold bred again to King of Colonels so that Mr. Davis has every reason to expect something mighty fine in this litter. In the sale at which Mr. Davis bought this sow there were seven sows that had been bred to King of Colonels and they sold for an average price of \$940.

With the exception of Speake's Model who brought \$2,800 in the same sale Ohio Chief's granddaughter is the highest priced Duroc-Jersey female that ever went through the sale ring and she lives in Kansas.

When writing advertisers please mention THE KANSAS FARMER.

There is no charm or secret about it. You simply spread it with a machine, and thus make it go twice as far, get twice as much good from it on the first crop, do your land more permanent good, and save half the time and labor of handling.

Manure is generally estimated to be worth \$2.00 a ton handled the old way. There is no doubt that it is worth twice as much to the farmer who spreads with a machine.

Three of the most practical and valuable machines manufactured for farm use today are the Corn King, Cloverleaf, and Kemp 20th Century manure spreaders. They are each made in a number of sizes.

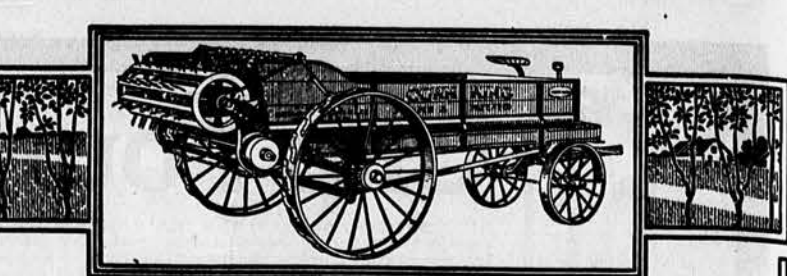
These machines differ somewhat in construction and operation, but all three are right working and of great durability. They are proven machines. They embody the best mechanical ideas, the materials used in construction are the best for the purpose, they are made as simple

as possible, and they handle manure in all conditions to the perfect satisfaction of users. Proof of all this is to be found in the record each machine has made in the field.

Is it not to your interest to own and use one of these spreaders on your farm? Figure out for yourself and you must agree that it will be a paying investment, even if you do not have over twenty-five loads of manure to spread in a year.

You can't help but be pleased with the work, the easy handling, the light draft and the substantial making which saves you the annoyance of breakage and repairs.

Call and see these spreaders with the local International agent. He will gladly point out to you the superior features of these machines, as well as supply you with catalogue, colored hanger or other information.



Make the manure bring you \$4 a ton

Thousands of Successful Farmers Are Doing It

There is no charm or secret about it. You simply spread it with a machine, and thus make it go twice as far, get twice as much good from it on the first crop, do your land more permanent good, and save half the time and labor of handling.

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WHEN WRITING OUR ADVERTISERS PLEASE MENTION THIS PAPER.

Agriculture

Mulching Small Grains.

EDITOR KANSAS FARMER:—During January of 1907 I covered one acre of winter wheat with a light coat of straw. The spring following was rather dry. The wheat grew through the mulch very nicely. The yield from the covered wheat was not as good as from the wheat not covered. It might be well to state that the wheat not covered was well harrowed in the spring, while the mulched tract could not be thus treated. During the spring of 1906 I mulched a small tract of oats just after it was sowed. This season was very wet at sowing time but rather dry during May and June following.

The experiment gave favorable results. The mulched oats grew six inches taller than those not treated thus. The yield was also much heavier.

JOHN E. ELLENBECKER.

Marshall County.

Testing Blue Grass Seed.

I have a quantity of English blue grass seed that is over two years old, neighbors tell me it will not grow. It was good, has been well kept, and looks good, but I am testing it and am afraid that they are right as it does not sprout. Please tell me whether it will ever grow after it is a year or two old.

JAS. MAER.

Wilson County.

English blue grass seed may retain its vitality for several years, provided it is good, prime seed, and is well saved. You may easily prove whether the seed in question is good seed by testing its germination. This is very easily done. Place a sample of the seed on the surface of a pan of moist soil and cover with a wet cloth, placing the pan in a warm place. All the good seed will sprout in a few days (8 to 10). Or the sprouting may be accomplished by placing a few seeds between wet folds of cloth in a dish or pan and placing this in a warm place. Put a cover over the pan to keep the cloth from drying out too rapidly.

A. M. TENEYCK.

Cow-Peas before Alfalfa.

I have a piece of ground that I would like to sow to alfalfa next fall. If I put it in cow-peas this spring, will that crop leave the ground in suitable condition for the alfalfa? Will the cow-peas come off early enough? When should the cow-peas be planted?

Sumner County. D. W. HOSKINS.

Cow-peas may be used as a crop to precede the fall sowing of alfalfa. The cow-peas should be taken off the ground as early as possible for forage and a good seed-bed prepared by disking and harrowing. This crop matures a little late and it is somewhat objectionable to precede alfalfa on this account. However, the cow-pea is a good crop for the land and prepares some available plant food and puts the soil into good condition for starting the young alfalfa plants, provided sufficient moisture is available. If the fall should prove to be too dry to sow the alfalfa, then this land should be in excellent condition for seeding alfalfa in the spring.

Cow-peas should not be planted until the ground becomes warm; usually about the first of June. Have mailed you circular No. 8 giving information regarding the planting and culture of this crop. Have also mailed you circular No. 10 on "Alfalfa."

A. M. TENEYCK.

The Holes in Alfalfa Fields.

EDITOR KANSAS FARMER:—The cause of large holes in alfalfa fields has never been satisfactorily explained to my knowledge, and now the question has been asked again by W. C. Rector of Mitchell County. Prof. Scheffer of the experimental station is of the opinion that the holes are started by gophers and then washed out by surface water. It seems also to be the opinion of A. M. TenEyck, and has been suggested by him that they co-

operate and by excavating try if possible and discover the cause.

Now please pardon me for interrupting, but just lean your spades and pick against the tool shed, and listen to my explanation of this question before you proceed, and perhaps you will agree with me. It looks reasonable, to me, that the same cause that makes small cracks in alfalfa fields would produce larger ones, and I think that we will all agree that evaporation or the alfalfa pumping the water out of the soil is the cause of the small cracks. As to the size or width of these cracks or crevices depends upon the soil. The more porous the less it is liable to crack or if the soil contains considerable sand it will not crack as air will go down and take the place where water has been removed by the growing plants, but if the subsoil happens to be a tough clay, in certain localities, perhaps on some knoll, quite a large body will cling together and as the alfalfa continues to pump out the water and the air can not penetrate the clay subsoil the large block will contract. If four feet of clay will shrink four inches, forty feet would shrink forty inches, this might continue for 20 or 30 feet then divide up several times, thereby making the cracks smaller. They usually are narrower at top then enlarge down a foot or two that is caused by the surface soil being more porous.

Take it in this part of Kansas, very frequently the alfalfa will take out more moisture in one season than the rain will replace, and sometimes there is a shortage for a period of years and the alfalfa roots will extend down to quite a depth and absorb the water so that it will take an extra wet season to replace the moisture, and that is the reason that in this part of Kansas corn will prove a failure on land that has grown alfalfa for several years. No matter how rich the soil, if the subsoil is dry, unless it happens to be an extra wet season the corn crop will be a failure.

W. B. E.

Ottawa County.

The Soil.

WITH REFERENCE TO FERTILITY AND MOISTURE.

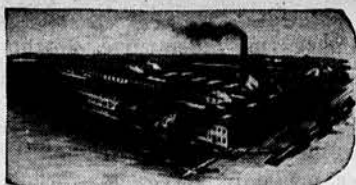
FROM A PAPER BY J. T. WILLARD, PROFESSOR OF CHEMISTRY, KANSAS STATE AGRICULTURAL COLLEGE.

The soil is the basis of all life but the lowest. Silent, unresisting, a prey to wind and water, it covers portions of the earth as a mantle of wealth. The strength of empires has for ages been drawn from it, and ever will be. A fertile soil is indispensable to the propitious founding, the continued development, and the perpetuity of a great people. Itself a product of disintegration and decay, it is the theater of organization and growth, the blending boundary between the mineral kingdom and the realm of life.

The earth has existed in substantially its present condition for unknown millions of years. It has reached this state by the ceaseless action of natural forces, forces that are acting to-day. The conditions that formed and placed soils in the past are operating now in a manner vital to their preservation and use. Hence there can be no intelligent and continuously effective treatment of soil that will use its fertility and at the same time conserve its possibilities, unless there is an understanding of the means by which soils have come to the condition in which man finds them.

SOIL.

By the term soil meant the more or less loose parts of the earth's surface that are capable of supporting plant life. Sand and clay are found in all soils, but a bed of pure sand or clay would not be soil, since it would not nourish plants. A hard mass or stratum can not support plants, no matter how rich it may be in nutritive elements. The chief bulk of the earth consists of such nearly impenetrable material. The means by which it has, in part, been pulverized, decomposed, perhaps transported, and has had incorporated with it the remains of vege-



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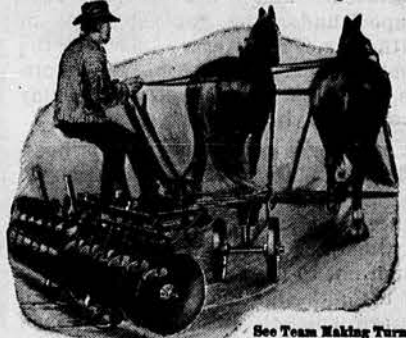
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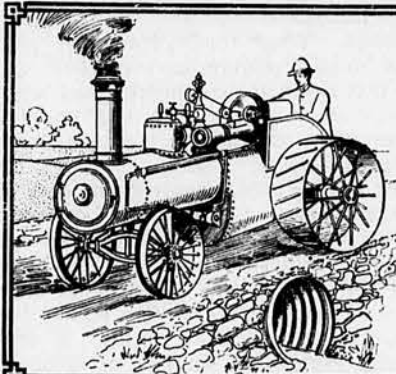
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WAGON and STOCK SCALE

table and animal life, thus producing soils as we use them, will be the first object of our attention.

KINDS OF ROCKS.

The rocks of the earth are mainly mixtures of different mineral substances. These rocks may have been formed (1) by the cementing together of loose deposits, (2) by alteration of other rocks through the action of heat and other agents, or (3) by the slow or rapid cooling of melted matter within the earth or ejected from its interior. How is the mineral matter of soils derived from this raw material?

WEATHERING OF ROCKS.

The changes by which rocks are disintegrated and decomposed are grouped under the general name of weathering. This term alludes to the prominent part which the air, moisture, and changes of temperature play in rock decay.

Whenever a solid substance is heated it expands in every direction. A hot iron rod is thicker and longer than the same rod when it is cold. A glass rod would be affected the same way though not to the same degree. Rocks and the minerals of which rocks consist are subject to the same law. There are rocks that are similar to glass, and they have been observed to have pieces large and small split off them by the strain caused by heat from the sun. They are poor conductors of heat, and the outer surface being expanded by the sun's rays becomes longer and wider than the cooler part beneath and thus is torn loose.

While the actual breaking of rock by heat alone is not of widespread occurrence, the invisible effects of changes of size are of great importance. Picture to yourself a piece of granite, consisting of several different minerals, each expanding at a different rate and some at different rates in different directions. Heating the granite tends to tear each kind of mineral from all of the others. Minute cracks are produced into which water can penetrate, and thus another still more powerful agent of destruction is set to work.

When water freezes it increases one-eleventh in volume. In a confined space it exerts a tremendous pressure as it assumes the solid state, and is one of the most effective agencies in rock disintegration. A porous stone may be washed clean of all powder. If it then be exposed to freezing temperature while soaked with water, and afterward warmed and washed again, it will be found that more or less rock-powder has been loosened. Similar action pulverizes the clods of the field and loosens compacted soils, thus putting them in better condition for tillage.

The effect of water on rock substance extends still farther. It forms chemical compounds with some of the constituents. These new compounds occupy more space than the old ones. It has been calculated that granite increases eighty-eight per cent in weight in combining with water to its greatest possible extent and that it more than doubles in volume.

By the combined physical and chemical action of water granite reaches such a condition that it breaks to pieces by the slightest blow while still appearing at first sight to be solid and strong. The decomposed granite used as ballast by some railroads is of this kind.

While pure water could produce the results described, water as it occurs naturally is not pure. Even rain-water dissolves substances from the air, and in its subsequent percolations through the earth it takes up other substances that on the whole add to its decomposing power. The atmosphere contains a small amount of carbon dioxide, and the air of the soil contains the same gas in higher percentage. Water dissolves carbon dioxide to a small extent and produces carbonic acid. This is a weak acid, but its universal distribution and its action through ages of time make it a powerful factor in solution and decomposition of rocks.

Carbonic acid water acts most readily upon limestone, and the enormous caverns of Kentucky, Indiana, Arkansas, and other regions are examples of

its power. It also decomposes more slowly many other rocks, dissolving parts and leaving other parts. In this way it is probably the most important means by which soil-fertility is constantly renewed in our fields.

ACTION OF WATER IN MOTION.

Water not only serves in various ways as the means of decomposing and disintegrating rocks and dissolving parts from them, but it is the chief agent in separating, transporting and assorting soil materials. Every loosened particle of rock is more or less subject to the action of wind and water. The former has doubtless played a large part in moving and sorting soil constituents, but space will not permit more than this reference to it. Water in its down-hill run carries with it loose material of all kinds. The mountain tops are denuded and the valleys receive the load. Rocks of surprising size are moved downward by the mountain torrents. With loss of velocity the coarse and less coarse parts are dropped until finally only the finest are held in suspension. Uncounted thousands of mountain and upland streams unite in their journey to the sea, and along the margins of the creeks and rivers so formed we find the enormous burden of soil wrested from the rocks and moving ever downward, little by little, as washed by the rain or the floor. The soils so deposited, and to a greater or less extent sorted and stratified, are known as alluvial soils. They are not restricted to the great valleys, but occur in the lower parts of uplands as well.

ACTION OF MOVING ICE.

The action of moving ice has been, and in parts of the world still is, an important factor in soil-making. From one cause or another there have been epochs of great snowfall in certain parts of the world, resulting in enormous sheets of snow-ice which have flowed slowly across mountain and valley, grinding within themselves immense quantities of rock picked up from the earth. The southwestern limit of such an ice-sheet or glacier in this country was a few miles east of Manhattan, Kans., and the northeastern part of this State shows more or less glacial soil, but this is not nearly so marked as in States farther east. Such soil, consisting largely of ground rock mingled with gravel, pebbles and large boulders, is usually very fertile, as the fertility has not been exhausted from the rock flour. The deposits of boulders are known as drift. In many cases they have been transported hundreds of miles.

RESIDUAL SOILS.

The solvent power of water containing carbonic acid has been referred to. If an ordinary limestone be treated with dilute hydrochloric acid it will be found that most of it dissolves with a violent effervescence, but that a fine insoluble residue remains, sometimes accompanied by sand. This fine residue is clay that was deposited with the limestone at the time it was formed. What the hydrochloric acid can do in a minute, carbonic acid can do if it is given time enough, and large areas of upland soil in this country consist of the clayey residues from thick strata of limestone, the lime rock having been dissolved and carried away by water containing carbonic acid. As limestones have been formed largely from the shells and bones of marine animal life, the residual soils formed from them are often among the richest. A limestone country is generally recognized as a rich country. Our own State has considerable areas that appear to be such residual soils. They overlie limestone, and the subsoil contains bits of that rock that are still in the process of being made into soil. A soil eight feet thick may easily be all that remains of a limestone fifty or sixty feet thick.

Other types of residual soils are known, produced from other kinds of rock than limestone. When residual soils have not been removed from the place they were formed they are termed sedimentary soils.

KINDS OF SOIL.

In the preceding paragraphs three kinds of soils have been mentioned, viz., alluvial, glacial, and residual. This

classification is based on the mode of formation. Soils are also classified by descriptive terms, referring to texture, composition, or position. Thus we have the following among others: Sandy, clay, loam, peaty, gumbo, alkali, hardpan, surface, and subsoils. Combinations of these are used, too; such as sandy-loam and clay-loam.

While nearly all soils contain some sand, this substance may amount to ninety per cent or more, and such are called sandy soils. Usually the sand is quartz, a hard mineral found in granite, sandstone and other rocks. On account of its hardness it has resisted the pulverizing agencies of nature more than the minerals associated with it. Although sand itself does not nourish plants, sandy soils are often very productive, as the portion of any soil available to plants is but a very small percentage. Sandy soils are usually said to be light because of the ease with which they are tilled. In respect to weight they are the heaviest of all soils.

Clay soils are those in which clay predominates, being present to the extent of seventy to ninety per cent. They are extremely fine in texture, hold water tenaciously and allow its passage through them with extreme slowness, and on drying they shrink very much and crack in every direction. The clay, which is their chief constituent, is a sticky, plastic substance and the finest of the material produced in the weathering of rocks. On account of its peculiar properties it binds soils together. Clay soils usually possess a good stock of plant food and when cultivated under proper conditions yield excellent crops, but their culture, requires special attention because of the peculiar qualities of clay.

Loam soils are intermediate between clay and sandy soils, and also contain a notable amount of organic matter, the residues of decomposed plants. This type of soil is one of the most highly prized, as it is rich, possesses suitable properties with reference to soil moisture, and is tilled with sufficient ease.

Peaty soils are wet, and consist largely of but slightly decomposed vegetable matter. Muck is a similar but more completely decomposed deposit. These are formed under water. Vegetable mold is produced by the decay or organic matter above water.

Gumbo soils possess very little sand, and consist chiefly of clay, but are black from the presence of organic matter. They are very productive, but on account of the high proportion of clay require careful culture.

Alkali soils possess an excess of soluble mineral substances—so much of them that in many cases plants can not grow on them until the mineral salts have been leached out by abundant irrigation water. In other cases the salts will permit the growth of certain plants, such as salt-bush and root crops. The tolerance of plants to alkali depends largely on the composition of the latter. When it contains sodium carbonate (sal soda) it is far more injurious than when this is absent. This substance in solution attacks the tissues of plants and makes a dark-colored liquid. As pools of this solution evaporate, black rings are deposited, hence this is known as black alkali. Other salts found in alkali soil do not thus attack plant tissues and are left as a white residue when solutions evaporate, hence are known as white alkali. When black alkali is treated with gypsum it undergoes a chemical change by which white alkali is produced, hence black alkali land can be improved by treatment with gypsum.

Hardpan is a hard, stiff soil caused by a destruction of porosity by the presence of excessive amounts of soluble mineral substances in the soil, especially if these include sodium carbonate. Hardpan is therefore formed in alkali soils. This condition may be removed by cultivation or other treatment which results in dissolving and removing the excess of soluble salts. Sometimes hardpans are produced by a cementing of the soil particles by calcareous or silicious materials. In this case we have an example of the reconversion of soil into rock.

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er portions often differ considerably in appearance and properties. The lower part is known as the subsoil, the other as surface soil or tilth. In some cases there is no marked difference between the surface and the subsoil. Usually the surface soil contains a much larger amount of organic matter or humus, and to this its different properties are largely due.

CHEMICAL ELEMENTS OF FERTILITY.

The chemical elements that plants obtain from the soil are: hydrogen, oxygen, nitrogen, sulfur, chlorine, phosphorus, silicon, potassium, sodium, calcium, magnesium, iron, manganese, and others in smaller amounts or accidentally. Carbon, so essential to plants, is obtained as a rule from the air. Nitrogen of the air is utilized by certain microscopic plants and through them reaches other plants. The oxygen of the air is taken up by plants, and that element also enters them in many compounds, such as water, nitrates and phosphates.

Soils consist of the products of rock decomposition and disintegration mixed with more or less organic matter and other remains of plant or animal life. When rocks decompose, the original compounds in them are transformed into new ones, while disintegration is simply a breaking up of the rock without changing its chemical composition. Most commonly by a decomposition of one or more constituents of the rock the remainder are separated and the rock thus disintegrated. The organic matter of soils is a highly important constituent from both a chemical and a physical point of view.

Of the chemical elements for which agricultural plants are dependent upon the soil, the only ones likely to be deficient are nitrogen, phosphorus, potassium, and calcium.

Calcium is the metal of limestone and gypsum, and is a less prominent constituent of many other minerals. It is most likely to be lacking in granite or sandstone soils, and is abundant in most if not all Kansas soils.

Potassium is present in soils in very small quantities. Usually the fine earth from which plants derive their nutriment contains only a few tenths of one per cent. The potassium of soils has come from the decomposition of feldspar for the most part, and

minute particles of this mineral in the soil by their continuous weathering serve to renew the available potassium. The total amount in the soil is strictly limited, however, and its loss can be made up only by adding suitable fertilizers.

Phosphorus is present in soils in very small amount, the fine part containing only about one-tenth of one per cent as an average for fertile soils. It is present in phosphates. The original source of phosphorus in soils seems to have been entirely from minute particles of the mineral apatite occurring in granite rocks. The bones of animals consist largely of phosphates, and have been a secondary source of the phosphorus of soils. Like potassium, when this element becomes deficient in the soil, artificial fertilization is the only means of restoring it.

Nitrogen is found in fertile soils to the extent of about three-tenths of one per cent, being present chiefly in the form of nitrates, ammonium salts and organic matter. The last serves as a reserve for this element, and by a succession of changes grouped under the name of nitrification the nitrogen of the organic matter is changed to nitrates. The nitrogen of the soil has probably all come from the atmosphere. By discharges of lightning nitrogen and oxygen of the air are brought into combination, forming a substance which when carried into the soil by rain produces nitrates. Certain forms of microscopic plants have the power of assimilating the free nitrogen of the air. Most of these grow in a semi-parasitic way upon the roots of legumes, to which peas, beans, clover, alfalfa, etc., belong. Through their agency these crops indirectly obtain the nitrogen of the air. In a state of nature the soil was occupied in part by many species of leguminous plants, and these have been the chief source of the nitrogen now stored in the humus of the soil. It is obvious that this, the natural source of soil nitrogen, is capable of indefinite application by man. In many cases a restoration of nitrogen to the soil by means of some leguminous crop is all that is necessary to completely restore for the time its crop-producing power.

The other essential chemical elements for plants will not be considered at this time, as they are seldom

lacking and space does not permit complete treatment of the subject.

DEFICIENT FERTILITY.

Probably the most common request made of the Chemical Department is one for analysis of a soil to determine to what crops it is adapted, or to ascertain what elements are deficient in it. Unfortunately chemical analysis can seldom give this information. It can assure one of the character of very rich, or very poor, virgin soils, but with most soils and conditions the results are of doubtful value. No chemical treatment has been devised that can imitate the solvent power of crops in general, much less that of special ones. Hence at present the best way to test soils is by means of crops or plants.

In a field a series of plots of about one-tenth acre each may be laid off. Some of these should be left without any fertilizer, others treated with those yielding a single element or the various combinations possible of two or more. Such an experiment, properly planned and executed, will give results by which one can conclude whether or not a soil is deficient in nitrogen, potassium, phosphorus, any two of them, or all three. If a soil responds by a noticeably larger yield when a fertilizer containing nitrogen, for instance, is applied, it may be assumed to be deficient in that element.

For testing soils on a still smaller scale pots may be used in a similar manner. The results so obtained are, however, of less general value because of the absence of the natural conditions of soil and subsoil.

MAINTENANCE OF FERTILITY.

The plant food of a soil soluble in water, and so capable of absorption by the roots of plants, is never more than an extremely small fraction of one per cent at any one time. However, as the roots absorb the parts in solution more dissolve from the soil. This can not continue indefinitely, and the processes by which rocks are made into soil must by their continued action on the rock particles in the soil continually renew the available substances, or sterility will result.

The maintenance of soil fertility and the restoration of fertility to a partially exhausted soil are problems of the highest importance. Crops can not

be produced without available mineral and nitrogenous substances in the soil, and continuous cropping must inevitably reduce the supply. Unless means are taken to restore them it is only a question of time when profitable production must cease. Nitrogen can be restored to a soil by the culture of clover, alfalfa, cow-peas, etc. Leguminous plants of any kind, by cooperation with bacteria growing on their roots, can acquire nitrogen from the air, and the crop residues left in and on the soil will greatly increase the supply of that element.

With the loss of mineral substances the case is different; they can be restored only by the addition of manure or commercial fertilizers. These cost care, labor and money, but if all care possible and a moderate amount of labor be expended in saving and applying barn-yard manure, the demand for money will be reduced to a minimum and its expenditure may be postponed many years.

The nitrogen, phosphorus and potassium contained in the excretions of one cow for a year, if bought in the form of commercial fertilizers, would cost at least thirty-five dollars in Kansas. A horse excretes fertilizer to the value of twenty-five dollars per annum, and the excrement of one hog is worth over three dollars, compared with commercial fertilizers. In fact, these farm manures are worth more than commercial fertilizers containing an equal amount of nitrogen, phosphorus and potassium, as the organic matter in them is of great benefit to the soil in the production of humus.

HUMUS.

When organic matter, either animal or vegetable, decays in the soil with a free supply of air it produces a black, porous substance known as humus. There are all degrees of decomposition between the fresh plants and the humus. In certain stages the material is brown instead of black, and is then much less active as a source of soil fertility.

The importance of humus in the soil can scarcely be overestimated. It acts both physically and chemically, and it improves the condition of both sandy and clayey soils. With the former it fills the interstices between the sand grains, thus increasing the water-holding power, while it makes clay

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soils more open and penetrable to water and air. By the black color which it imparts to soils it causes a greater absorption of heat from the sun's rays, and hence hastens the warming up of such soils in the spring.

Humus plays an important chemical part in soils. By its oxidation carbon dioxide is produced, which enriches the water of the soil with carbonic acid, thereby increasing its power to dissolve mineral substances in the soil. Organic acids are also produced which, though of uncertain composition, without doubt exert an important effect in the decomposition of the rock particles of the soil. Humus also serves as a storehouse for certain elements of fertility. It consists largely of carbon, and the carbon dioxide produced by its oxidation that is not held in solution escapes into the air, thus increasing the amount in the part of the atmosphere in which plants grow. The phosphorus of the original organic tissues is present to a certain extent in the humus, and observations have shown that the phosphorus of humus is a very important part of the available fertility of a soil. Lands deficient in humus may show considerable diminution in wheat yield, due to the lack of phosphorus in the humus. Humus is even more important as a storehouse of nitrogen. Nitrates and ammonium salts are highly soluble nitrogen compounds which are especially suitable for plant use, but are liable to be carried away from the soil by drainage on account of their solubility. The nitrogenous organic residues of the soil are of very slight solubility for the most part, hence are not subject to removal by drainage, but are slowly made available to plants.

NITRIFICATION.

The succession of changes by which the organic matter or humus is transformed into nitrates is known as nitrification. The several steps of this process are due to different species of microscopic life. Thus certain species produce changes which result in the formation of compounds of ammonia; another species transforms the ammonium salts into nitrites, and still another changes the nitrites to nitrates.

The nitrification of organic matter is one of the most important of all the processes of soil chemistry, and an understanding of the conditions under which it takes place is highly important. It is essentially a process of oxidation, that is, compounds are produced of which the oxygen of the air is an essential constituent, hence nitrification can take place only when air is present. Swampy or water-logged soils do not permit this change. However, the process being one dependent upon living organisms, a certain amount of moisture must be present for it to go on.

The presence of finely-divided calcium carbonate, which may come from limestone or chalk, has been found to favor greatly the formation of black humus from the brown, less-decomposed organic substance. It also promotes the nitrification of the black humus, a power possessed by gypsum and other calcareous substances as well. These furnish the metal necessary to the formation of nitrate. This is one reason why a limestone region is a rich one. The presence of such a substance is necessary to nitrification.

Another condition that greatly affects the rate of nitrification is the temperature. The high heat of summer coincides with the greatest manifestation of this process, while in winter it ceases entirely. The nitrifying organisms are destroyed by sunlight, hence the process goes on somewhat below the surface of the soil.

It will be seen from the preceding that the essentials of nitrate-production are: (1) Organic matter, (2) certain kinds of microscopic living things, (3) oxygen from the air, (4) moisture, (5) moderately high temperature, (6) darkness, and (7) a substance capable of neutralizing acids. An understanding of these points will enable the farmer to assist this highly important process.

SOIL-WATER.

The water of soils is present in three forms. In the one it is capable of

flowing, tends to assume a certain level, and is known as ground-water. Its depth marks the distance to which wells must be sunken to reach water, but this distance varies in the same soil, depending on the amount of rainfall and the rapidity of drainage. A second form in which water exists in soils is known as capillary-water. In this case the water is not visible as such, but the soil has a different appearance from that which it has when dry. Such water may move slowly through the soil, passing from particle to particle by adhesion or capillary attraction in something the same way that oil creeps up the wick of a lamp. Capillary-water must not be supposed to creep upward only as it moves in any direction from points having more water to those having less, the tendency being for an even distribution of it through a given body of soil. A suitable supply of capillary-water and a physical condition that permits its proper movement is of the highest importance to crops.

Water may also be present in the soil in what is known as the hygroscopic form. This is entirely invisible. All solid objects condense upon their surfaces appreciable amounts of water. This power differs with different materials, and as it is due to some sort of surface attraction, the amount thus held by a given substance depends largely upon the fineness of division; the more porous a soil, therefore, the greater the amount of water which it is capable of holding in the hygroscopic form. Soils that appear to be perfectly dry may have eight or ten per cent of water in them. This hygroscopic water does not move through the soil by capillary attraction, hence is not available to plants to the extent that capillary water is, but it has a sustaining power in time of drought and by its evaporation keeps down the temperature. Soils having high hygroscopic power require a larger total amount of soil moisture than those with less hygroscopic power in order that crops may have the needful amount of water available. The water thus available to the crops may be called free water.

Water escapes from the soil in four ways: (1) Run-off, (2) drainage, (3) evaporation, and (4) absorption by plants and evaporation from them, chiefly through the leaves.

When the conditions of the soil are such that the rain can not be absorbed as rapidly as it falls the water runs off, and is not only lost to the soil, but may do irreparable damage to it. Where the rainfall is somewhat deficient it is especially important to prevent this loss. To do so the immediate surface of the soil should be loose and open so that the water may penetrate rapidly and the air escape from beneath, thus permitting the water to pass downward. After a hard rain the surface of cultivated land will be found to be packed by the beating of the rain, and it will dry in a hard crust. Such a crust is in no condition to receive the next rain and transmit it to the soil below. It should be broken up by tillage.

The damage to lands done by washing is greater the greater the velocity with which water runs over them. To diminish the velocity the direction of flow should be such as to insure as gentle a slope as possible. If the cultivation and planting are so planned as to make all furrows as nearly level as possible by following the contour of the land across the slopes instead of up and down them, damage from washing will be reduced to a minimum and absorption of rainfall by the soil raised to a maximum. Soils which may not wash badly as long as organic matter is in them in abundance may become subject to this damage as the humus diminishes. In some regions it is necessary to plant strips in grass following around the contours of the hills in order to place a barrier that will intercept soil washed from above. Large tracts of land have been totally ruined by neglect of proper precautions with reference to the run-off.

The loss of water by drainage from the soil can not be altogether prevented, not is this desirable. A condition that permits the escape by drainage

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of excess of water is a valuable one in any soil. It prevents the bad results that always follow prolonged exclusion of air. Soils with an excess of alkali may be irreclaimable if defective in drainage.

The water removed by plants growing in the soil is enormous. The amounts required will be treated in another number of this series, but all efforts to conserve soil moisture must take in account the fact that the growth of any kind of vegetation on the soil causes the loss of water far more rapidly than would occur if the land were bare.

The loss of water by evaporation from the soil is a subject of the highest importance in the practise of agriculture. If all rainfall could be conserved in the soil and be available for the crops grown thereon the yields in most parts of this State would be nearly or quite doubled. It is impossible to prevent wholly the escape of water by evaporation, but much can be done to diminish this loss.

DRY-FARMING.

The practise of dry-farming, to which so much attention is being given at present, depends for any success that it may attain upon reducing to a minimum the losses of water by (1) run-off, (2) through useless plants, and (3) evaporation from the soil. The loss by run-off must be prevented by devices already indicated, and by maintaining a loose surface to receive the rainfall, and an open subsoil to which the water can penetrate through the tilth, and which may serve as a reservoir for its storage. Evaporation through other plants than crops must be prevented by perfectly clean culture. This is one of the highest importance. It is useless to hope to accumulate moisture for crops while weeds are drawing it from the depths and exhaling it to the thirsty air.

The means that preserve a loose, clean surface to receive rainfall and prevent its loss through weeds are also those that conserve the moisture by checking its evaporation. A blanket of loose earth from two to four inches thick is an effective hindrance to the escape of moisture from below by capillary attraction.

The conservation of soil moisture and its subsequent delivery to crops are insured by a proper handling of the soil. Of the methods and machinery that may be used, volumes might be written. The essential points are: (1) A loose surface to let rain-water in rapidly. (2) A firm but permeable and deeply tilled substratum into which the water can be absorbed, by which it can be retained, and up through which it can be again brought by capillary movement to the roots of growing crops. The upper portion of this body of earth will be part of the soil turned in plowing—the tilth, the lower portion will be subsoil, and the deeper that this possesses absorbent power the better. (3) Cultivation of the surface as often as its looseness is destroyed by rains, thus maintaining a soil-mulch and preparing it to receive the next rain. (4) Cultivation whenever necessary to kill weeds when they first start.

Though certain special implements, such as the subsurface packer, are very useful in fitting soils to store moisture, there is scarcely a farmer who lacks a plow, a disk harrow, a straight-tooth harrow, or a cultivator, and these, used at the right time, are all that are necessary. When grain is cut, all the moisture still in the soil should be saved if possible. The stubble-field is in perfect physical condition for lifting all capillary-water out and dissipating it in the summer air. The sooner such stubble is plowed the better. Plowing with the soil in perfect condition, and following the same day with the straight-tooth harrow, is a treatment that is not excelled by any as a means of conserving moisture. If the plowing can not be done when the soil is in that ideal state for the work, other implements are more needful.

The disk harrow may be used to establish quickly a soil-mulch that will check loss of soil moisture until the more permanently effective plowing can be done. A single day is of incal-

culable value. Under the torrid heat of the summer sun dollars are flying from the ground on the wings of the wind, and the motto of the dry-farmer must ever be, "Make a soil-mulch, and do it now."

Horticulture

Luther Burbank and His Work.

A SKETCH BY PROF. W. A. HARSHBARGER, TOPEKA.

About forty-five miles north of San Francisco in Santa Rosa is the home of Luther Burbank, the foremost plant-breeder of the world. The vine-covered cottage, which was his home until December, 1906, stands on a six-acre tract enclosed by a picket fence. To the casual observer this might seem the well-kept place of a country gentleman who gardens for pleasure. To the initiated, the whole place is of unique interest. The rows of boxed beds contain many rare plants from all over the world as well as thousands of seedlings, each a part of some carefully planned experiment. Here is a bed of sweet potatoes from the Philippine Islands which are too sweet to be palatable, while nearby is a bed of wild potatoes from South America growing in rampant luxury and trying, as Mr. Burbank puts it, to take the place. In the corner a bed of marigold of unusual size, perfect shape, and wonderful purity of color catches the eye. Farther on a bed of the new Australian star flower forms a beauty spot, and next a bed of giant amaryllis of almost incredible size, perfect shape, and marvelous color combinations stop one and hold him spell-bound. Their equals could be found nowhere else in the world. Toward the front we note a fig tree sent him by the United States Department of Agriculture, a giant spineless cactus, a stately palm with its trunk covered with a hybrid Ampelopsis vine, a hybrid elm tree, a row of thistles learning to lay off their defensive armor, a bed of fragrant dahlias and along the walk in front a row of six majestic hybrid walnut trees. Each plant is the result of an experiment or a part of one still in progress. To some of these I shall refer later.

PLACE OF EXPERIMENTS.

About seven miles from Santa Rosa, toward the foothills Mr. Burbank has a tract of about eighteen acres where his larger experiments are carried on. Here are thousands upon thousands of trees and plants of a bewildering variety of forms, from which a few will be selected and the others destroyed. An idea of the magnitude of Mr. Burbank's experiments may be given by stating that on this Sebastopol farm he has several hundreds of thousands of hybrid plums, about eight thousand hybrid chestnuts, the result of crosses of Italian, Japanese, Chinese, and American kinds; fully as many hybrid walnuts, the results of crosses of the common black walnut, the Japanese, the English, and the Manchurian butternut, approximately ten thousand seedlings of the pineapple quince; thousands of peach and crosses of the peach and nectarine; at least ten thousand hybrid potatoes, together with thousands of plumcots, apricots, cherries, grapes, berries, grasses, and other forms too numerous to mention. In the course of his experiments he has worked on something like two thousand five hundred species of plants. It seems almost incredible that one man should be able to keep track of such an array of experiments to say nothing of submitting each to that careful scrutiny that it must receive; yet this he does, and as a California month has no more days in it than has the same month anywhere else, it is easy to see that he is a very busy man.

MR. BURBANK'S EARLY EXPERIMENTS.

Mr. Burbank was born on a farm

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near Lancaster, Mass., March 7, 1849. His father was of English descent, and his mother was Scotch, of the family from which comes W. Atlee Burpee, the seedman of Philadelphia. Mr. Burbank's schooling was obtained in the public schools and a local academy. At the age of eighteen, he was apprenticed to the Ames Plow and Spade Works, of Worcester, Mass., to learn wood-turning and pattern-making, where he remained three years. At the age of twenty-one he purchased a small farm near Lunenburg, Mass., and took up market gardening and seed-growing. He here began to experiment with plant-breeding, working on the potato, the grape, and some wild flowers, in particular the daisy. Here he originated the Burbank potato, which he sold to J. H. H. Gregory & Son, at Marblehead, Mass., for \$150. According to an official statement of the United States Department of Agriculture, made a few years ago, this potato is adding seventeen millions per annum to the agricultural productivity of the country. This potato was sold in 1875 and in September of that year Mr. Burbank quit Massachusetts and settled in California. This was at least partially on account of his health, but probably largely because California offered an ideal climate for his work. At first Mr. Burbank rented a small nursery near Santa Rosa, where he cultivated small fruits and market flowers. At the start this did not yield large returns, and he sought work on farms about Santa Rosa to increase his income. In 1888 he bought his present place and organized a large nursery by which he accumulated some capital. His experiments in plant-breeding were so much more interesting to him than the regular nursery business that he sold the latter

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part of the business about 1890 and gave his entire time to his experiments. In 1893 he issued his first catalogue of "New Creations in Fruits and Flowers." From that time to the present he has applied himself to the production of new forms with a success so startling that it has caused the horticultural world to wonder and has led many of the foremost men in this line both in this country and Europe to visit his place and study his methods.

THE METHODS.

So far as I can learn Mr. Burbank's methods are in the main the same as those of other successful plant-breeders. The main difference is the scale on which he works, using at times half a million of plants in one experiment, the breadth of his outlook, and the keenness of his perception, which enables him to note and take advantage of the most minute changes in a plant's form. He seems to form a mental picture of the form he wants and then to work directly and definitely toward that form.

The processes used may be conveniently grouped under four heads, change of environment, crossing, and hybridizing, mutation, and selection. Change of environment refers to taking a plant from one locality and causing it to grow under very different conditions of soil, climate, and cultivation. This alone produces some remarkable results. Crossing refers to mingling the blood of plants in the same species, the productions of mongrels. Hybridizing is the same process applied to plants of different species or different genera. These processes are used to break up the life habits of the plants, and produce a wide range of variation from which to select. Selection accompanies all the other processes, or more accurately, it precedes, accompanies, and follows them, and in some instances is used alone. For instance, by selection alone Mr. Burbank produced his crimson Eschscholtzia, white Iceland poppy, Heuchera Cristata, and several other forms. According to Dr. Jordan a valid species of wheat has been produced by selection. Mutation, as generally spoken of, is not well understood. It refers to those forms that come suddenly into existence, the sports, such as climbing roses arising from bush forms, or different colored flowers. A case is recorded this winter, where in a house of 4,000 carnation plants of the variety Enchantress, nineteen separate sports occurred; while this is an extreme case, yet such sports are very numerous among hybrid forms, and sometimes occur in fixed species. A study of this subject in a less limited sense than the one I have used has led Dr. Hugo DeVries to write a large book in which he accounts for the origin of species by mutation, instead of gradual change as held by Darwin.

THE SYSTEM OF GRAFTING.

In addition to these processes Mr. Burbank uses an elaborate system of grafting, thereby saving years of time in his experiments on trees. By this means he has reduced the time from the planting of a plum pit to its production of fruit to four and often three years. In taking up his separate productions, I can only allude to a very few and shall choose those that seem to me not only the most remarkable, but also to be of the greatest economic interest.

In 1877 Mr. Burbank crossed the English walnut (J. Regia) with the California black walnut (J. Californica). The seeds of this cross were planted in 1878. From these seedlings the most rapid growing were se-

lected and grafted onto other walnut trees, to hasten them into bearing. The experiment is still in progress, but has already given rise to the variety Paradox, a tree of very rapid growth, with large fragrant foliage. When I visited Mr. Burbank's place I was much struck with a row of six of these planted in the hard clay along the sidewalk in front of his residence. Three of these have since been cut down to prevent crowding. In sixteen years they reached the height of sixty feet with a spread of seventy-five feet. The diameter of the trunks at three feet above the ground is twenty-six inches. The lumber is dense and takes a fine silky polish. This tree bears very few nuts. It is harder than the English walnut, but yet not reliably hardy for cold climates. For milder climates it is an ideal shade tree, and is proving one of the best foundations for the English walnut, and has immense possibilities as a lumber tree. I think it would stand our climate in Eastern Kansas, but it might freeze back in our coldest winters. This tree was recognized by the United States Department of Agriculture in its 1896 report.

Another tree along this line, in some ways more valuable than the Paradox is the

ROYAL WALNUT.

This is the result of a cross of the common black walnut (J. nigra) on the California black walnut made in 1878. A tree of this variety, standing on a ranch between Santa Rosa and Sebastopol is, at the age of sixteen years, one hundred feet high and has a spread of fifty-four feet, at three feet above the ground the diameter of its trunk is three feet. This is a very symmetrical, handsome, ornamental tree with an upright growth. It bears freely nuts larger than those of the black walnut. Its wood is very heavy, hard, close-grained, and takes a fine silky polish. It will probably prove hardy wherever the black walnut tree flourishes, and must become a valuable lumber tree. Last spring I planted six of these, along with some five hundred small nursery trees of various hardy kinds from Eastern nurseries. The freezes in April and May killed them to the ground, but all but one recovered and made a growth of from one to three feet, while fully 95 per cent of the Eastern trees died outright. This speaks well for its ability to meet adverse conditions. Mr. Burbank has made a paper shell walnut, one free from tannin, and has some 8,000 seedlings, crosses between the black walnut, the Japanese, the English, and the Manchurian butternut. He has also some 10,000 hybrid chestnuts, crosses of the Italian, Chinese, Japanese, and American varieties. Some of these bear at the age of eleven months from seed, and a few even earlier.

THE SPINELESS CACTUS.

Among the many experiments Mr. Burbank has conducted to a successful end, perhaps none have so much economic importance as his spineless cactus. The thorough preparation he made for this experiment is also interesting, as it so happily illustrates the breadth of his outlook, and the care and cost of the production of a new plant form. In 1895 while seeking a forage plant for the arid regions, he turned his attention to the Opuntia. Through collectors he got seed from Mexico, Central and South America, North and South Africa, Australia, Japan, Hawaii, and the South Sea Islands, as well as from various regions in the United States from Maine to California. These were planted and carefully cultivated, thus he had spread out before him the Opuntias of the world, more than one hundred and fifty species and varieties. Rigid selection was practical on the uncrossed seedlings to get the best that each kind could produce. Many kinds showed that they could be made spineless by selection, but lacked other qualities. Having selected the desired plants, the next step was a complicated series of crosses, continuing through the blooming period. The seedlings from these primary crosses, as usual, show little variation; how-

ever, the succeeding generation show more marked change in very many directions. Some are far more thorny than their ancestors, a not unusual result. Some few show change in the right direction. These are carefully saved, recombined, and rigid selection again applied, and so on through the years until the desired result is reached in a cactus that at the age of three years is eight feet tall, and weighs one thousand two hundred pounds, and is entirely free from spines and spicules. This, however, is only one of six varieties that he last year offered for sale. Personally, I regard this as the most striking, as well as the most valuable single achievement of horticulture. It takes a large view of the conditions of the world to appreciate its possibilities. If we remember that practically one-third of the land surface of the earth is arid or semi-arid, we get some idea of the field open to this newcomer. If we further study the conditions that often prevail in famine stricken regions, we can get a more vivid idea of the need of a plant for desert conditions. As an illustration, in the famine of 1896-97 and 1899-1900 in India twenty-one millions of people starved to death. Any new crop that will put a stop to such conditions is of incalculable value. This the cactus promises to do, for it is food for man and beast. In tests already made it has yielded at the rate of ninety tons per acre in six months from the planting of single rooted leaves, and this too in heavy adobe soil and cool coast climate; on a sandy soil in a hot climate, with some irrigation, its yield would be much more. It produces fruit of a superior quality, with a sugar content running from twelve to sixteen per cent. Some varieties will produce as high as 1,800 pounds per acre. The fruit ships well and is very palatable for those who like sweet fruit. It is almost certain to become an important factor in the fruit-producing business.

One of the chief points of interest to me in the production of this cactus was the bringing together of so many species and varieties from such widely separated regions and growing them for a time uncrossed, thus getting the best that each wild species could produce under new environments, before any crossing was done. I noticed this plan in many of his experiments.

THE SHASTA DAISY AND OTHER PLANTS.

The Shasta daisy is another illustration of this. He got seed of the common field daisy from different places in Massachusetts, Pennsylvania, New York, and New Jersey, grew these for some generations, selecting the best, then on these best forms crossed the large, coarse English daisy, and on seedlings of this cross, crossed the Japanese daisy. Here are these plants brought together from widely separated regions, and each made to contribute its part in the creation of an entirely new type. Such wide crosses produce a bewildering array of forms, and it requires very refined judgment to select those that will produce the desired result. Selection is Mr. Burbank's strong point, and by means of combined selection he gets some remarkable results. To some I have already referred. His race of columbines from which the spurs were eliminated, and the size of the flower much increased is a good example, as is also the gladiolus that bears its florets distributed about the stalk, much like a hyacinth instead of on one side as in the ordinary type. In breeding up his race of giant amaryllis after repeated crossings he selected for size of flower, and got a race in which florets a foot across were not uncommon, and with a remarkable range of color combinations, but with stems too long and slender to hold up the flowers. By selection the stems were shortened and thickened until this trouble was entirely removed. His race of amaryllis is conceded to be the finest ever produced. I have had one bulb in a pot in my window produce seventeen flowers at one blooming, the smallest one nine inches across, and the largest a

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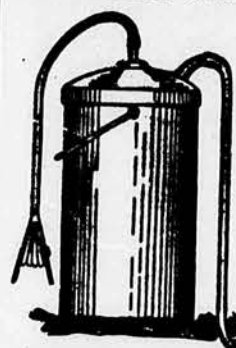
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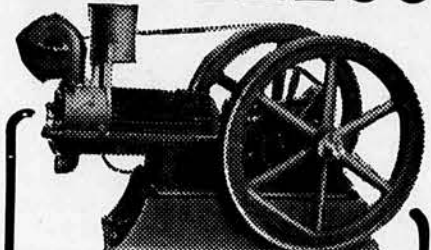


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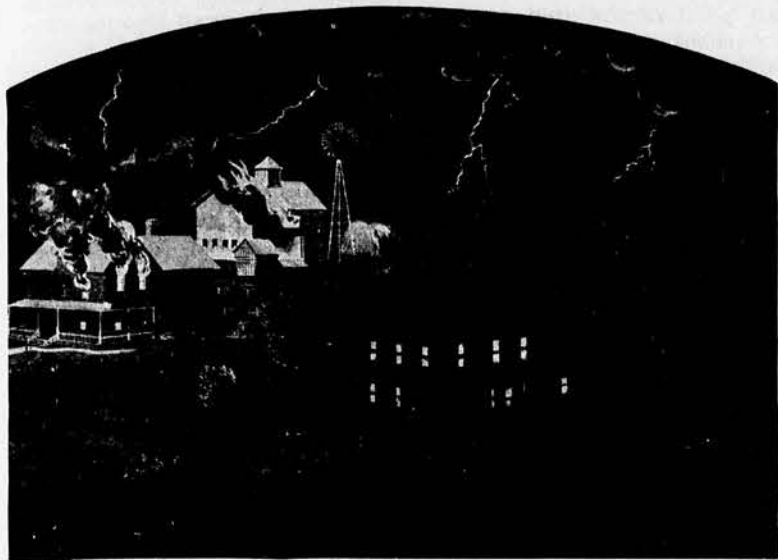
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scant thirteen, borne on stems that needed no stakes.

MR. BURBANK'S WORK ON THE PLUM.

Any account of Mr. Burbank's work to be at all representative must consider what he has done for the plum, yet here, as in other lines he has done so much that the limits of this article preclude even bare mention of the different varieties produced. From the plum that bears his name, and which has won its way around the globe, and is to-day the most widely planted variety of plum in existence, down through a long list to Santa Rosa introduced 1907 and Formosa and Gaviota 1908, there are enough famous varieties to establish the reputation of one man. There is in these varieties a wonderful advance from the simple to complex parentage, as instanced by Formosa, which has in it the blood of some eighteen kinds. In his block of some 300,000 hybrid seedlings are many other fine kinds which will yet be heard from. In particular the block of pitless plums holds great promise, and is likely to yet revolutionize the plum industry. One variety of these has, I believe, been put on the market by an Oregon nursery company. Many of them are entirely free from pits, but have not yet reached the standard of excellence that Mr. Burbank requires.

THE RUTLAND PLUMCOT.

Allied to these is the Rutland plumcot, introduced in 1907. It is a cross of a hybrid Japanese-American plum on the apricot. It is an entirely new fruit. Mr. Burbank does not consider it perfect as yet but as it is hardier than the apricot and bids fair to thrive farther north, he has consented to its introduction. Mr. Burbank has made a large number of similar crosses to this, as strawberry-raspberry, blackberry-apple, blackberry-mountain ash, plum-almond, peach-nectarine, etc. Some of these blossomed freely, but produced no fruit, some he still has under experiment.

BERRIES.

Among berries Mr. Burbank has originated some unusual forms, notably the Iceberg blackberry, the Primus berry, and the Phenomenal-berry. Iceberg is the result of a cross of a wild, yellowish white form and the Lawton. It is large, of good quality, and pure white color. This was stolen from Mr. Burbank and introduced by other parties, but he now has even better white forms. The Primus berry is the result of a cross of the California dewberry on the Siberian raspberry, and is now ranked as a true species. Out of a large number of seedlings resulting from the cross, Primus was the only one to fruit. The others bloomed freely, but failed to set fruit. Of 5,000 seedlings of Primus, all came true. Commercially this

berry is not regarded as valuable, but is of considerable scientific interest. The Phenomenal berry is the result of a cross of California dewberry and Cuthbert raspberry. It is of nearly as great scientific interest as Primus, and in addition is a valuable commercial variety on the coast. It is a rapid grower and heavy bearer of very large fruit that ripens early. It would probably not be a success east of the Rockies. Mr. Burbank has also a race of berries free from briars. When he gets the quality of the fruit up to the required standard this will prove a valuable race, and this end is now in sight. He had also bred the elderberry up to a form with very large, pure white fruit entirely free from bitter taste. He is still at work on large numbers of its seedlings and hopes to make it a fruit of commercial value. Mr. Burbank seems to delight in taking up a plant that is generally considered a nuisance and elevating it to a position of usefulness. There are many other things that should be mentioned, hybridizing by grafting and the like, that space forbids my touching. Interested persons will do well to consult the writings of Wickson, Jordan, DeVries, and Harwood.

MR. BURBANK'S WORK.

In closing, let me say that Mr. Burbank took up this work when our country was doing next to nothing in the line of scientific plant-breeding and when accounts of what had been done in Europe were not readily available. He began at the bottom and has worked his way steadily up to a position at the very top. Indeed, such authorities as Dr. Hugo DeVries ranks him as the foremost practical plant-breeder of the world. Even scientific plant-breeders before publishing their theories study his experiments and measure their theories by his observed facts. His experiments have been made on a scale never before attempted, and his observations are of the utmost value. Working independently he has rediscovered many of the laws underlying the subject. Other so-called laws he has shown to be entirely inadequate. He has not made money in the modern sense of the term. In his own words, he has not had time to make money. He has met and surmounted difficulties that would have overcome a smaller man. When men of smaller calibre have snapped and snarled at his heels, he has gone quietly about his work, paying no attention to them, always letting results speak for him. Some of the results of his work we have in the new fruits, flowers, and vegetables he has given up. Other and greater results will follow from the interest his work has already aroused. This is already apparent in the increasing number of books on the subject, the increasing amount of literature of a class above

SEED OATS

that which merely enables one to pass a pleasant hour.

This country is just beginning to do its share of the world's work in the production of new varieties of grain, fruits, and flowers. Even now nine out of ten of our best varieties of garden roses come from Europe, not because they can not be produced here, but because it is easier to import them. It stands to reason that forms suited to a certain soil and climate could be better produced in those environments than in entirely different ones. The work of Burbank will yet teach us to quit simply drifting and strike out boldly and definitely toward the forms that we need, and to get them. This is not mere prophesy. Enough is now being done to show that the real workers are awakening. I hope Kansas is to do her full share in this line. No one can listen to the discussions in the meetings of this society without being thoroughly convinced that the varieties of apples, pears, plums, and peaches entirely suited to our soil and climate are still in the future. Let us hope that some of our fruit-growers will set about their production. It is too much to hope that we will produce a Burbank. Such men are rare in any age. Theirs is the task of pointing out the way to the army of more humble workers. It took a Franklin to chain the thunderbolt, and a Morse to make of it a valuable public servant. When the army of lesser lights had brought to its seeming limits the sending of messages on wires, then arose a Marconi to point a new way, and show how to do without the wires. So in plant-breeding, Burbank has blazed a broad, plain way into the vast field. Let others follow and fill in the details, and for the pride we have in our State, let Kansas not be the last to take up the work.

A hen has very little sense. If you can be kind and gentle to her at all times, even if she gets out of her own coop and you can't drive her back, the chances are you are a first-rate sort of fellow and good to yourself, your wife, and your fellow man.

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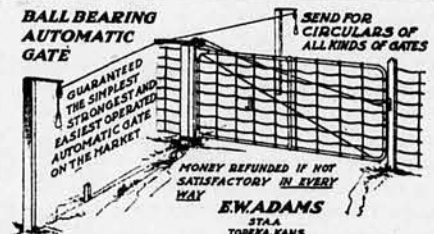
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When a fellow's mighty lonesome and don't know what to do, And his conscience keeps inquiring, "Say, what's the good of you?" And he ain't prepared to answer, 'cause he don't know what to say, But keeps on gettin' bluer as his feelin's lean that way, 'Till he doesn't care a copper whether school keeps on or not, For it seems to him his life has been one big, unsightly blot— Then let him hear a footstep, let him note a presence near, Two warm, soft arms about his neck— the words, "I love you, dear." When, lo! that chap, disheartened quite, who but a moment hence Had sold himself quite willingly for less'n "thirty cents," Is a different man instant! he counts himself as worth As much as any man that walks abroad on this big earth, And he wouldn't trade his prospects for either fame or gold, Nor swap for any other's place the place 'tis his to hold. The mountains now are little hills; no more he dreads his part, But manfully he carries out the purpose of his heart. O, what wondrous transformation, as worked by power above, Is wrought so often by the thought of one true woman's love.

—W. L. Hendrick.

New Homes.

Many new homes have been just begun. Probably at this time of the year and a little earlier there are more marriages than at any other. This is especially true in the country. It is the time when there is less to do than at any other, and no doubt the man at least wants to get established in his new home before the busy time comes. The happy girl in the case doubtless thinks only of the love of the one man in the world for her. Her heart is so full of the joy of it that she has no room for anything else, and times and seasons are all the same to her. A responsibility now rests upon them greater than ever before, but too few realize the full importance of it. Too few understand the real significance and what it means not only to themselves but to the community to establish a home.

Newly married people come up against many things that never confronted them before. There are two now to be considered—two wills to be merged into one; two hearts that should beat in unison; and two minds that should be compatible. So much depends upon the right start in everything, and especially is this true in starting the home. The husband is the head of the home and it is incumbent upon him to behave as if he were—not by asserting in a tyrannical manner that such is the case but by assuming the responsibilities belonging to the head. The woman has been made responsible for the happiness of the home, has been admonished and preached at upon the subject. But I fear the husband has been neglected. All that is said to the wife and mother in regard to their being true homemakers is doubtless true; but the man has a prominent part to play and as the wife looks up to him as the head and for support and comfort, her ability to do her part is greatly augmented or diminished by the manner in which she is treated and by the place which she holds in his affections and in his estimations.

The man who ever remembers his marriage vow to "love, honor, and cherish" his wife and shows it, seldom fails in having a happy home and family, and a loving, obedient, trustful wife. Just think over the words "love, honor, and cherish" and see how much they mean. What woman with womanly instincts could help loving the husband who does this?

A happy home is not possible where there is no love and a home that is not happy is a failure and a blight upon God's creation. Woman lives and thrives upon her husband's love and if he withholds it or allows work or business or anything to so crowd his time that he forgets the actions of love or leads her to think she is only a housekeeper, and that time is too

short and work too urgent for the courtesies that belong to her, even though down in his heart he may love her it will be like an eclipse of the sun to her, and sooner or later it will have an unhappy effect upon them both; upon him, because failing to exercise the expressions of affection, his love languishes; upon her, by causing her to doubt his love to herself—her own affection will grow less fervent and a breach will begin which widens with the passing years. She may, as she should, strive to be the true wife and mother no matter what he does—and be cheerful and happy in appearance; but no matter how much she may assume, it can not be like the spontaneous joy that comes from the heart of her who knows she is loved and honored by him to whom she has committed her love and her life.

It seems a pity to see young married people "settle down" at home, withdrawing themselves from society, church, and neighbors; become careless in their habits of living and dress, and begin the long life of just work. I say just work. Industry and thrift are cardinal virtues, and the home can not exist well without them; but many persons become careless about their appearance and allow their clothes to become shabby and then gradually they get into the habit of staying home from church and social gatherings and the habit grows. The wife often needs only encouragement, and an invitation from the husband to go to see a neighbor would be gladly accepted and a pleasure to both. Leave a space in each day for a social time together, if it can only be for twenty or thirty minutes. Be interested each in the other's work and pleasures. Read together, sing together, if you can, and avoid controversies and dispute. If you can't agree, let the subject drop. Study to please each other and forget self. Let your motto be "We are one."

Hygienic Cookery.

MRS. HENRIETTA CALVIN, PROFESSOR OF DOMESTIC SCIENCE, AGRICULTURAL COLLEGE.

COOKERY OF VEGETABLES.

Vegetables are usually divided into legumes (peas, beans, and lentils); roots and tubers (sweet and Irish potatoes, turnips, parsnips, carrots, salsify); and green vegetables (cabbage, cauliflower, spinach, lettuce, celery, cucumbers, asparagus, and squash.)

All vegetables are largely composed of water, varying from 74 per cent of water in potatoes to 94 per cent of water in asparagus. They are especially valuable for the mineral matter contained in them, which, though apparently in small amount, is really more abundant in vegetables than in any other foods. It constitutes from 1 per cent to 2½ per cent of their composition. The vegetables have little fat and but a small amount of protein, the larger portion of their nutrients being carbohydrates, either starch, gums, cellulose, or sugar.

POTATOES.

Potatoes constitute an important part of all American diets, the Irish potato being more extensively used in the northern and western parts of the United States than any other vegetable. The food value of the potato is the starch which it contains and its small but important percentage of mineral matter. The potato should be so cooked as to rupture the starch grains and also to preserve the greatest possible amount of mineral matter during the cooking. Boiling without removing the skins, or baking, best retains the mineral matter. When boiled in water with paring removed much of the mineral matter, together with much of the starch, is lost in the water. The potato when done, by whatever method it has been cooked, should be dry and mealy. All foods so prepared that they readily break into

small particles digest more quickly than the same foods if in larger portions when swallowed.

When there are potatoes left cold to be used at some following meal, it is better to serve them creamed than grease-soaked and partially browned, as is too often done. Creamed potatoes are cold potatoes cut into cubes about one-half inch large and heated in a white or cream sauce.

WHITE SAUCE.

White or cream sauce is composed of the following materials: Milk, flour, butter, and salt. Pepper may be added. The following is the recipe meant when no special recipe is given and the expression "one to one white sauce" is used:

One cup of milk, one tablespoon butter, one tablespoon flour, one-third teaspoon salt. Heat the milk scalding hot in a double boiler. Rub the butter, flour and salt together until blended into a smooth paste. Stir the blended ingredients into the hot milk and continue stirring until smooth and of the thickness of cream. Allow to cook twenty minutes, after which time it will be ready for use.

When the white sauce is used with the cold potato it will be necessary to add the potato to the white sauce five minutes before serving, that the potato may be thoroughly heated.

CREAMED VEGETABLES.

Turnips, carrots, salsify, cauliflower, cabbage, onions, green peas, and asparagus may be cooked in boiled salted water and served covered with white sauce, a mode of preparation which greatly improves the flavor of the vegetable.

The turnips, carrots, and salsify will require careful washing and the removal of the paring. Turnips should be cut into half-inch cubes before being boiled. The surplus water that is drained away removes the strong flavor of the turnips and leaves them much more agreeable. Carrots and salsify should be cut across the roots into slices one-half inch thick before being boiled. Cauliflower should be placed, flowerlets down, in cold salted water for one hour before being placed in boiling water to cook. This soaking in cold salted water is to remove any small insects that might have been in the cauliflower. Cabbage is cut into quarters before being boiled. If cabbage is cooked in an uncovered utensil it will not darken while being boiled. Onions should be cut once across if large, but may be left uncut if small. Peas should be freshly gathered and should be young and tender. They require shelling before cooking. Asparagus may be cut in one-inch pieces or may be left uncut. In either manner of cooking only the brittle, tender portions should be used.

SCALLOPED VEGETABLES.

A "scalloped" dish is prepared by filling a buttered baking dish with alternate layers of cooked vegetables and white sauce and covering the last layer with buttered crumbs. The baking-dish is placed in the oven and allowed to remain until the crumbs are browned and the white sauce has bubbled up at the edge of the baking-dish. The food is served in the baking-dish.

BUTTERED CRUMBS.

Six tablespoons crumbs, two tablespoons butter; melt the butter and stir in the crumbs.

CREAM SOUPS.

All cream soups may be prepared by one general formula, viz.:

One cup of white sauce, one cup of cooked vegetables and water in which it was cooked. Force these vegetable with its liquid through a sieve or colander and add to the white sauce. Heat and serve with toasted crackers or bread sticks.

These cream soups may be the main dish for a winter evening's supper. They are nourishing, economical, easily prepared, easily digested, and palatable. The materials used are found in abundance in all farm homes. The small quantities of vegetables left from a previous meal may be utilized, or the more unedible parts, such as the tops of celery, may be used. Peas, beans (Lima or navy), tomatoes, onions, cabbage, cauliflower, or even

Do You Open Your Mouth

Like a young bird and gulp down whatever food or medicine may be offered you? Or, do you want to know something of the composition and character of that which you take into your stomach whether as food or medicine?

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squash, may be the vegetable entering into the soup.

Fresh Meat in Summer.

I was in a home once and ate such splendid sausage in the summer. It was the stuffed kind and had been fried a little and packed in layers in a stone jar and hot lard poured over it. In an exchange I read the following about having fresh pork in summer:

"We kill hogs near spring (now is a good time) and fry and season ready to use, then place in layers in jars (two gallon are the best size), mixing the hams and shoulders with the side-meat, and cover all about two inches with hot lard. This excludes the air. In this way you may have fresh, sweet meat all summer.

"The meat should be covered with hot fryings each time after opening the jar.

"We have fried down meat this way a good many years, and there never is a scrap wasted."

Health.

S. J. CRUMBINE, M. D., TOPEKA, KANS.

Health is a state of physical, mental, and moral equilibrium, a normal functioning of body, mind, and soul. It is the state when work is a pleasure, when the world looks good and beautiful, and the battle of life seems worth while. Health is the antithesis of disease, degeneracy, and crime.

The laws of health are as inexorable as the laws of gravitation, as exacting as eternal justice, as relentless as fate, and their violation is the beginning and cause of all disease, suffering, and sin.

Health is the most desired of earthly blessings. When finally lost it can not be purchased by uncounted millions, restored by the alienist, or returned by the pulpit.

Health is that state of happiness, faith, and love whose prototype was the first man—Adam; whole ideal is the Christ.

Not Incorrect.

The morning class had been duly instructed and enlightened upon the subject of our National independence. Feeling sure she had made a real and lasting impression with her explanations and blackboard illustrations the young teacher began with the usual round of questions:

"Now, Sammy Smith, where was the Declaration of Independence signed?"

Sammy, with a shout of glee: "At de bottom, ma'am—that's what you said!"—The Ladies' Home Journal.

On the Inside.

The editor of the Woman's Home Companion, discussing the important subject of clean groceries in the February issue, takes its readers right into the factory itself:

"Here is one of the greatest food factories in the world. All told, it covers twenty-three acres of floor space.

"Here, in the cellar, you will find the flour, sacks piled upon sacks, seventy-two thousand of them, before your eyes, and all that flour intended for the manufacture of just one brand of crackers made by this firm.

"Flour in a cellar! 'Ah,' you say, 'it may mold.'"

"It can't. That cellar would put your kitchen floor to shame. It shines. It is dry as a bone. And for the further protection of that flour, it is not allowed to rest on the cemented floor, but is piled on great trays or shelves raised several inches from the flooring, with a current of air between.

"Now they are ready to mix cracker dough, and the great sacks of flour are carried by elevators to the upper floor, where sack after sack is turned into what looks like a huge iron bath tub on rollers. When the required quantity of flour is in this 'tub,' really a great mixing pan, it is rolled under the most wonderful spigots, through which flow three sorts of filtered water—boiling hot, ice cold and the precise temperature of the city water. These are blended by an equally wonderful thermometer and

barometer until they are at exactly the right temperature. Then, measured by meter, the water is turned into the flour. The sponge tub is rolled over to a mighty mixer, worked by machinery, and here, for the first time, a human hand touches it. When the head baker thinks this sponge is about rightly mixed, he touches it. Like your grandmother and mine, he says he can judge its texture best by actual touch. And his hands are as clean as his uniform, which is saying more than can be said for the average housewife in the average kitchen."

The Young Folks

THINGS THAT COUNT.

Not what we have, but what we use; Not what we see, but what we choose— These are the things that make or bless The sum of human happiness.

The things near by, not things afar; Not what we seem, but what we are— These are things that make or break, That give the heart its joy or ache.

Not what seems fair, but what is true; Not what we dream, but good we do— These are the things that shine like gems, Like stars, in Fortune's diadems. Not as we take, but as we give; Not as we pray, but as we live— These are the things that make for peace, Both now and after Time shall cease. —Clarence Urmy.

The month of March is the queerest month Of all the months in the year. We call it spring, and talk of the buds And flowers that soon will be here: But it smiles one minute and frowns the next, One day will be mild and fair, And then, of a sudden, thick and fast, A snow-storm fills the air. —Selected.

Be Square.

There is nothing more detestable than doing things in an underhanded way, and these words to boys from such a man as Jacob Reis are worth while for them to read and hearken to. This is taken from the American Boy, one of the best boys' papers published:

"If I were to say two words to the youths of this country, it would be those words which the greatest American—Theodore Roosevelt—has given to young Americans—'Be Square!' The ten commandments, the golden rule, and all the good advice which your parent or your teacher may give you, in the end is nothing more nor less than this one sentence. Be square with yourself, be square with your neighbor, be square with your country.

"The weak boy, the lad with flabby muscles and a poor body, is not square with himself. He can not give the world the best that is in him. He must have a strong body to do big things either with his muscles or with his brains. When he squanders his strength and neglects those things which will give him strength, he is cheating, not only his employer, but himself. He is not square.

"The squarest man in this country and his enemies will say so as well as his friends, is our President. I wish that every American boy could come to know him as I know him. I have stood by his side in the stormiest periods of his life. I have seen him conquer obstacles, have watched him in trial and stress and victory, and have grown to honor him, because at all times he has been a man through and through, every inch of him.

"Can you tell me, my boy, what you do with your leisure hours, how you spend your time after school? What does your school building mean to you? Ever realize that you spend a good many years in that school? It ought to be pretty dear to you and, I believe, that, if you would all pull together you could make it still more so. How about a club in the neighborhood that would come down to the school building of evenings? And why not try to interest your parents in that club and get them to come along, too? Ever utilize the school playground on Saturday? Indeed, do you ever go back to your school building once a month when you don't have to? I think that the school house

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The merchant and the middle man cares only for his profit; the larger his profit, the poorer the oil he forces UPON YOU. DIRECT from the REFINER to the CONSUMER should be your motto. To the people of Kansas see what we can save you. If your kerosene costs you now at your store 10c per gallon, we can save you from 20 per cent to 25 per cent. If it costs you 12c, we can save you 40 per cent to 45 per cent. If it costs you 15c, we can save you 70 per cent to 75 per cent. If it costs you 20c, we can save you 120 per cent to 125 per cent.

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should be the center of all the young people's pleasures of the neighborhood, that the boys and the girls should be able to spend their evenings and their holidays there and that their parents should join them. What do you think of the idea? Don't you believe it is a good one? Can't every American boy study it over?"

An Invitation.

Girls do not usually realize to what extent their conduct influences the actions of young men toward themselves and unwittingly and innocently but very unthoughtfully encourage familiarities from them that lead often to evil. The following incident from the Youth's Companion, illustrates the fact:

"Cliff, what made you scowl while I was putting that rose in Jim's buttonhole?" Stella Pierce demanded, as she ran down the steps from the porch and joined her brother. "We're not going to be late. They can't begin the play until I'm there, anyway. I'm to put on the make-up for them."

They had walked to the corner together before Cliff answered shortly, "No; I didn't think we'd be late."

"What was it, then? Surely not because I gave him the rose—a boy I've known all my life?"

"No. It wasn't the thing you did. But you took such a time about it, and held your face so close to his, and smiled up at him so. You'd have been mighty surprised, no doubt, if he had put his arms round you and given you a hug?"

Stella's head went up haughtily. "What a thing to say to me, Cliff Pierce! Jim wouldn't dare touch me. The boys all know they can't take liberties with me."

"All the same, your whole manner was an invitation. You needn't get angry, sis. I knew you didn't mean anything by it, but girls don't understand how some things seem to boys, and I've noticed that way you have with the fellows before. It's just as if you dared them to come on. I tell you, you've got to look out. If one of 'em should take you up some day you'd have only yourself to thank."

"I consider your remarks insulting," said Stella in high disdain, and they walked in silence the rest of the way to the hall where the amateur theatricals were to be given.

Once in the midst of the exciting hurry behind the scenes, Stella forgot her grievance, and taking out rouge-pot, brushes, and pencils, began her work.

"Who next?" she asked, presently, as she was completing a pair of beautiful eyebrows for one of the girls.

"Take Mr. Atwater!" cried the busy "leading lady." "We shall want him first of all."

"But I don't need any paint," objected the big, handsome fellow as he dropped into the chair before Stella. "Of course you do," she retorted, dimpling down at him. "You'd look like a ghost without it behind those footlights."

Then the flurry about them went on, and Stella, recognizing a new dash of spice in her task, tried to seem unconscious, while she worked, of the black-eyed stare of admiration, which never wavered.

"Well, I'm reconciled to paint," young Atwater remarked, meaningly, as she put on the finishing touches. "My face is yours, to do anything you like with it."

"No, thank you," she answered, roguishly. "Not with all that rouge on it."

"Take some of it off," he challenged, and just then it happened that the leading lady hurried half a dozen performers to the stage, leaving the two by themselves for an instant.

"I—don't know where to begin," Stella flung back, still laughing.

"Begin with my lips," he said, with a quick step forward, and ten seconds later Stella stood alone in the room, ready to stamp the floor in helpless rage.

"I hate him! I hate him!" she said aloud. "Impertinent! Common! How dared he?" She was rubbing the smear of rouge from her own angry face, and as she did so the details of

her own part in the scene just past flashed before her. Like a judgment, she heard her brother's words, "Yourself to thank."

"It's true," she owned to herself, turning her crimson face away as three more actors in need of complexions came trooping into the room. "Oh, I'm ashamed!"

Playing Ball with a Machine.

No doubt boys like to have work done by machinery, but if I were a boy I believe I would rather have the fun of throwing the ball myself. There is, however, a machine for ball playing. The Youth's Companion describes it:

"Lovers of baseball will be interested in the tests of the new pitching-machine which have been going on at Harvard. Many a striker has felt, when he stood at the plate, that the balls came to him from the pitcher's box as if shot out of a cannon. Those who face the Harvard automatic pitching-machine will experience the reality, for the new device is really a cannon, which drives the ball by compressed air. The man who feeds it can regulate the speed of the balls by varying the air pressure. Moreover, he can give the ball any desired curve. The curves are said to be peculiarly hard to judge because they are very 'quick,' that is, they begin to swerve only just before they reach the batter. In one amusing thing all the batters agree; that the difficulty in hitting balls from the machine is due not so much to their speed or their curves as to the fact that there are no warning preliminary motions on the part of the gun. It simply shoots. The corkscrew motions and windmill gyrations of the human pitcher, on the other hand, not only confer pleasure on him and impress the spectators, but give useful information to the batter."

The Little Ones

LISTENERS NEVER HEAR ANY GOOD OF THEMSELVES.

Three little crickets, sleek and black,
Whose eyes with mischief glistened,
Climbed up on one another's back
And at a keyhole listened.

The topmost one cried out, "Oho!
I hear two people speaking!
I can't quite see them yet, and so—
I'll just continue peeping."

Soon Dot and Grandma he could see—
Tea-party they were playing;
And as he listened closely, he
Distinctly heard Dot saying:

"This pretty little table here
Will do to spread the treat on
And I will get a cricket, dear,
For you to put your feet on."

Three little crickets, sleek and black,
"Run for your life, my brothers!
Fly, fly!" He scudded out of sight;
And so did both the others.

—Carolyn Wells, in St. Nicholas.

Patient Johnnie.

B. McDUFF, ATCHISON, KANS.

Once, Johnnie's mama took him down town, where he met a friend who invited him to have an ice cream soda. Of course, any boy is pleased to be treated to such a nice refreshment, and Johnnie's eyes danced with delight at Mr. Jones's invitation.

Mama was a busy woman, and when Mr. Jones invited Johnnie, she understood that he would see her little son home; therefore, she went to the store where she was employed, leaving Johnnie to Mr. Jones's tender care.

Mr. Jones, however, understood that Johnnie's mama would call for him, so, after he had finished his cream, he left him to sit in the drug store till mama's return.

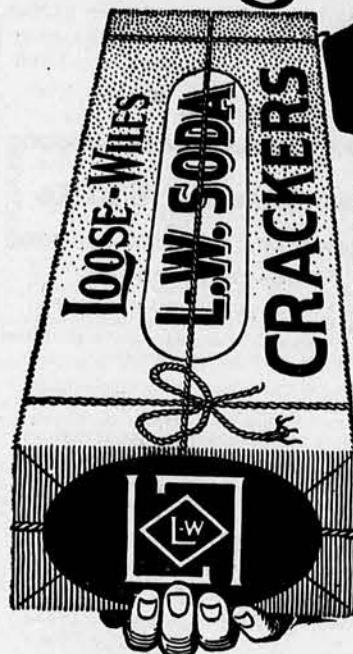
Dear, patient little Johnnie sat so quietly in his chair, that even the clerks in the store did not realize his presence.

It was 11.30 when Johnnie had his soda; at 2.30 a baby voice said: "I wish somebody would come to take me home."

Johnnie knew he must not venture out alone on the busy street, among the cars and horses, so he patiently and unobtrusively waited.

Since then all of his friends call him "Johnnie Patience." Is it not a very nice name?

The BIG Package



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of Loose-Wiles Soda Crackers pleases your grocer—because it will please you. Regular trade is his best asset. You'll come back for more. Please you, too.

Please you when you open the box and get the first nibble—crisp—flaky—wholesome—delicious.

Please you when you find they are fresh to the last—free from dust and moisture in the Triple Protection package.

Please you when you see how different they are from bulk crackers that are exposed to the air—absorbing dust and moisture.

The real crackers are the Loose-Wiles Sodas, always fresh, always crisp, always flaky.

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INVEST IN THE SOUTHWEST
I While Lands are cheap
I Where Labor is well paid
WHERE INVESTMENTS YIELD LARGE RETURNS
WRITE FOR LIST OF OPPORTUNITIES
P.H. THOMPSON & CO., PORT SMITH, ARK.

The Club Member

is the official organ of the women's clubs of Kansas. It is well edited, well printed, and well illustrated. It is bright and up to date. It is published monthly by some of Kansas' brightest club women at 50 cents per year. By arrangement we can send this paper and The Kansas Farmer each one year for only \$1.25. Address, The Kansas Farmer Co., Topeka, Kans.

Pay When You Are Well

for Piles and Gonor. No knife or ligature. Not detained from work. Call or write. Will furnish treatment.

W. J. LANKFORD, M. D.,
Phone 728, Hefrick Bldg. CHANUTE, KANS.

PERFECTLY DEVELOPED BUST
I have the safe and true SECRET for perfectly developing the Bust, making thin cheeks, neck and arms plump and beautiful. Write for information; I send it sealed, FREE.
DELMAR ASSOCIATION, 24 East 23d St., New York.

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L. M. PENWELL,
Funeral Director and Licensed Embalmer.

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VARICOCELE

A Safe, Painless, Permanent Cure GUARANTEED. 30 years' experience. No money accepted until patient is well. CONSULTATION and valuable BOOK FREE, by mail or at office.
DR. C. H. GOS, 905 Walnut St. Kansas City, Mo.

Can't Miss It

So many ailments are purely nervous affections, that you can hardly miss it if you try Dr. Miles' Nervine. It restores nervous energy—and through its invigorating influence upon the nervous system, the organs are strengthened. The heart action is better; digestion improved, the sluggish condition overcome, and healthy activity re-established.

"Dr. Miles' Nervine is worth its weight in gold to me. I did not know what ailed me. I had a good physician but got no relief. I could not eat, sleep, work, sit or stand. I was nearly crazy. One day I picked up a paper and the first thing that met my eyes was an advertisement of Dr. Miles' Nervine. I concluded to try it and let the doctor go, and I did so. After taking two bottles I could dress myself. Then I began taking Dr. Miles' Heart Cure and now I can work and go out, and have told many the benefit I have received from these remedies and several of them have been cured by it since. I am fifty-nine years old and pretty good yet."

ANNA R. PALMER, Lewistown, Pa.
Dr. Miles' Nervine is sold by your druggist, who will guarantee that the first bottle will benefit. If it fails, he will refund your money.

Dr. Miles Medical Co., Elkhart, Ind.

Club Department

Officers of the State Federation of Women's Clubs.

President.....Mrs. Eustace H. Brown, Olathe
Vice-President.....Mrs. C. H. Trott, Junction City
Rec. Secretary.....Mrs. F. B. Wheeler, Pittsburg
Cor. Secretary.....Mrs. Charles C. Shoales, Olathe
Treasurer.....Mrs. C. W. Landis, Olathe
Auditor.....Mrs. M. S. Munson, Eldorado
General Secretary.....Mrs. C. C. Goddard, Leavenworth
General Director.....Mrs. W. A. Johnson, Topeka

Our Club Roll

Excelsior Club (1903).....Potwin, Butler Co.
Women's Literary Club (1903) Osborne, Osborne Co.
Women's Club (1903).....Logan, Phillips Co.
Domestic Science Club (1888).....Osage, Osage Co.
Ladies' Social Society No. 1, (1888)
Minneapolis, Ottawa Co.
Chalitto Club (1903).....Highland Park, Shawnee Co.
Cultus Club (1903).....Phillipsburg, Phillips Co.
Literateur Club (1903).....Ford, Ford Co.
Star Valley Women's Club (1903).....Iola, Allen Co.
West Side Forestry Club (1903)
Topeka, Shawnee Co., Route 8.
Fortnight Club (1903).....Grant Township, Reno Co.
Progressive Society (1903).....Rosalia, Butler Co.
Pleasant Hour Club (1899)
Wakarusa Township, Douglas Co.
The Lady Farmer's Institute (1903)
Marysville, Marshall Co.
Women's Country Club.....Anthony, Harper Co.
Richardson Embroidery Club (1902)
Madison, Greenwood Co.
Prentiss Reading Club (1903) Cawker City, Mitchell Co.
Cosmos Club.....Russell, Kans.
The Sunflower Club (1906).....Perry, Jefferson Co.
Chaldean Club (1904).....Sterling, Elise Co.
Jewell Reading Club.....Osage Co.
The Mutual Helpers (1903).....Madison, Kans.
West Side Study Club (1903).....Delphos, Ottawa Co.
Domestic Science Club (1903) Berryton, Shawnee Co.
Mutual Improvement Club (1903)
Vermillion, Marshall Co.
Clio Club (1897).....Columbus, Kans.
Centralia Reading Circle.....Nemaha Co.
White Rose Branch (1907).....Syracuse, Kans.
Cedar Branch (1907).....Lookaba, Okla.
Y. W. C.....Princeton, Franklin Co.
Silver Prairie Club (1907).....Wauneta, Kans.
(All communications for the Club Department should be directed to the Club Department, Kansas Farmer, Topeka, Kans.)

Year Book for 1908.

The Mutual Helpers' year book for 1908 is out. It begins with January 1 and continues to December 30. It is truly a little booklet of sunshine. It is so full of beautiful, helpful, happy quotations and sentiment that one is uplifted just to read it through.

Historical Committee.

The Historical Committee has planned the year's work, and will continue the work begun by Miss Lucy Kingman of gathering personal recollections of State and city history. The women of the committee have pledged themselves to work for a larger membership for the Kansas Day Club. Also they will locate and make a list of the historic places surrounding the city, such as the old Indian mission, the house where John Brown stayed, etc. It is their intention to make a map of the city with these places marked and they will gather up the history of the old school buildings. They wish to place a cabinet in the Historical City Federation cabinet and which shall contain all relics and manuscripts belonging to the City Federation. The committee requests all the clubs of the federation to devote one program to Topeka Day, if possible, the first week in December, as December 5 is the anniversary of the founding of Topeka. The clubs of the city are requested to send a copy of their year books to the historic committee. Communications for the committee may be sent to any of the members: Mrs. Margaret Hill McCarter, Miss Zu Adams, Miss Maud Bishop, and Miss Emma Wallace.

The Neighborly Club.

This club was organized by the leading farmers of Hendricks County, Indiana, who desired some means for better social intercourse in their community, as well as an organization to keep them in close touch with each other and in sympathy with each other's progress. This club was not alone for discussion of farm topics, but was designed to fill the needs of the whole family, and twelve farmers and their families constitute the membership. It so happened that these twelve families had a score and a half of young people who all attended the monthly meetings and held a jollification of their own, aside from the more serious sessions for the old people.

The programs included discussions of farm topics, reading papers, recitations, musical numbers, etc., of general interest and discussions of household themes by the ladies. Occasionally the entire meeting is given over to the young people, who present the

program and furnish the entertainment. The club meets monthly at the home of some member, or picnics in the woods. Membership is limited to twelve families who live in the immediate neighborhood and, as in this case, the club includes almost all adjacent families, there is no strife due to ambitious outsiders.

Miscellany

The Experiment Stations.

EDITOR KANSAS FARMER:—I like THE "old reliable" KANSAS FARMER better and better all the time. I have started in this year to save every issue.

Will you kindly publish in the columns of THE KANSAS FARMER the names of the towns of each State in the United States where experiment stations are located?

Amarillo, Texas. J. R. LAW.

The following list enumerates the principal experiment stations. In some States additional stations are maintained for specific purposes. In writing to these stations they may be addressed by the name of State following this with the words "Experiment Station" and adding the name of the post office, thus Kansas Experiment Station, Manhattan, Kansas, or the director may be addressed by name.

J. F. Duggar, Auburn, Alabama; R. H. Forbes, Tucson, Arizona; W. G. Vincenheller, Fayetteville, Arkansas; E. J. Wickson, Berkely, California; L. G. Carpenter, Fort Collins, Colorado; E. J. Jenkins, New Haven, Connecticut; Harry Hayward, Newark, Delaware; R. H. Rolfs, Gainesville, Florida; M. V. Calvin, Experiment Station, Georgia; H. T. French, Moscow, Idaho; E. Davenport, Urbana, Illinois; Arthur Goss, Lafayette, Indiana; C. F. Curtiss, Ames, Iowa; C. W. Burkett, Manhattan, Kansas; M. A. Scovell, Lexington, Kentucky; W. R. Dodson, Baton Rouge, Louisiana; C. D. Woods, Orono, Maine; H. J. Patterson, College Park, Maryland; W. P. Brooks, Amherst, Massachusetts; C. D. Smith, Agricultural College, Michigan; W. M. Liggett, St. Paul, Minnesota; W. L. Hutchinson, Agricultural College, Mississippi; H. J. Waters, Columbia, Missouri; Paul Evans, Mountain Grove, Missouri; L. B. Linfield, Bozeman, Montana; E. A. Burnett, Lincoln, Nebraska; J. E. Stubbs, Reno, Nevada; W. D. Gibbs, Durham, New Hampshire; E. B. Voorhees, New Brunswick, New Jersey; Luther Foster, Agricultural College, New Mexico; W. H. Jordan, Geneva, New York; L. H. Bailey, Ithaca, New York; B. W. Kilgore, Raleigh, North Carolina; J. H. Worst, Agricultural College, North Dakota; C. E. Thorne, Wooster, Ohio; W. L. English, Stillwater, Oklahoma; J. Withycombe, Corvallis, Oregon; H. P. Armsby, State College, Pennsylvania; H. J. Wheeler, Kingston, Rhode Island; J. N. Harper, Clemson College, South Carolina; J. W. Wilson, Brookings, South Dakota; H. A. Morgan, Knoxville, Tennessee; J. W. Carson, College Station, Texas; P. A. Yoder, Logan, Utah; J. L. Hills, Burlington, Vermont; A. M. Soule, Blacksburg, Virginia; E. A. Bryan, Pullman, Washington; J. H. Stewart, Morgantown, West Virginia; W. A. Henry, Madison, Wisconsin; B. C. Bufurn, Laramie, Wyoming.

Couldn't Discharge Him.

When the jury had filed in for at least the fourth time, with no sign of coming to an agreement in the bribery case, the disgusted judge rose up and said, "I discharge the jury."

At this the sensitive talesman, stung to the quick by this abrupt and ill-sounding decision, obstinately faced the judge.

"You can't discharge me, judge!" he retorted.

"Why not?" asked the astonished judge.

"Because," announced the talesman, pointing to the defendant's lawyer, "I'm being paid by that man there!"

Lots of people give advice when they can't afford it.

KANSAS FARMER SPECIAL OFFERS

Special Offer No. 1.

The Great Magazine Bargain of the year. A saving of 40 per cent on the publishers' prices.

Review of Reviews.....	\$3.00
Woman's Home Companion.....	1.00
Success Magazine.....	1.00
The Kansas Farmer.....	1.00
Our Price	\$3.75
Regular price.....	\$6.00

Special Offer No. 2.

Another great offer which includes Country Life in America, the most beautiful magazine published.

Country Life in America.....	\$4.00
The Garden Magazine.....	1.00
McClure's Magazine.....	1.00
The Kansas Farmer.....	1.00
Our Price	\$4.75
Regular price.....	\$7.00

Special Offer No. 3.

Weekly Inter-Ocean.....	\$1.00
National Home Journal.....	1.00
Dressmaking at Home.....	.50
Kansas Farmer.....	1.00
Our Price	\$1.75
Regular price.....	\$3.50

Special Offer No. 4.

Campbell's Manual Soil Culture.....	\$2.50
Kansas Farmer.....	1.00
Our Price	\$2.50
Regular price.....	\$3.50

Special Offer No. 5.

Metropolitan Magazine.....	\$1.50
Reliable Poultry Journal.....	.50
Weekly Capital.....	.25
Kansas Farmer.....	1.00
Our Price	\$2.00
Regular price.....	\$3.25

Special Offer No. 6.

Review of Reviews.....	\$3.00
Success Magazine.....	1.00
Kansas Farmer.....	1.00
Our Price	\$3.00
Regular price.....	\$5.00

Special Offer No. 7.

Vick's Magazine.....	.50
Green's Fruit Grower.....	.50
Kansas Farmer.....	1.00
Our Price	\$1.40
Regular price.....	\$2.00

Special Offer No. 8.

The American Magazine.....	\$1.00
Review of Reviews.....	3.00
Woman's Home Companion.....	1.00
Kansas Farmer.....	1.00
Our Price	\$3.75
Regular price.....	\$6.00

Special Offer on Dailies.

The Kansas Farmer one year and any one of the following dailies for the price of the daily alone:

Topeka Daily Capital.....	\$4.50
Topeka Daily State Journal.....	4.00
Kansas City Daily Star and Times.....	\$5.50

Special Offer on Weeklies.

The Kansas Farmer one year and any one of the following weeklies for the price named below:

Breeders Gazette.....	\$2.00
Scientific American.....	4.00
The Commoner.....	1.00
Hoard's Dairyman.....	1.00
Inter-Ocean.....	1.25
Western Swine Breeder.....	1.00
American Swine Herd.....	1.00

A Book for Everybody.

The Kansas Farmer has just bought a number of the Busy Man's Friend for its subscribers. This is a book of 250 pages of things that every one should know. It is a compendium of Legal and Business Forms. A Fund of Practical Information for Every-day Life. It contains the Busy Man's Code; The Hows of Business; Points of Law and Legal Forms; Digest of Laws; Practical Information for Busy Men; The Busy Man's Digest of Facts; Computations at Sight. The book is illustrated and bound in cloth. Any old subscriber who will send us \$2 for two new subscriptions will receive this book, postpaid, as a present. This offer is good as long as the books last. Order early and get "The Busy Man's Friend" absolutely free.

—ADDRESS—

The Kansas Farmer Co.,
TOPEKA, KANS.

Dairy Interests

No Law on the Subject.

EDITOR KANSAS FARMER:—Is there a Kansas law preventing creamery companies from paying more for butter-fat in one town than in another? The expense for hauling is the same.

Ottawa County. W. B. EAMES.

There is no law regulating prices of butter-fat or requiring uniformity of prices. The fact that there is great variation in quality of butter-fat, or perhaps more accurately, in the quantity and quality of the foreign matters associated with butter-fat makes an attempt to regulate prices by law peculiarly absurd. A buyer may pay what he pleases for any product except oil.

How Do Your Cows Pay?

"How are your cows paying?"
"I don't know!"

Ask that question of ten men and nine will give you the negative answer. They do not know. Get down to the matter of the sum particular dairies return their owners, and the most satisfactory answer will be based on the money taken in from year to year. No account is taken of the cost of production. It is all a one-sided thing.

What do we mean when we say, "My cows brought me in forty-five dollars a head last season?" Do we not mean that, putting the question of cost aside, we took in as the result of our labors that sum per cow? To make an intelligent answer to the question, we must be able to figure up what our cows cost us in feed, in labor, and other expenses. Over against that we may set the money taken in and so arrive at a fairly accurate solution of the problem.

COST MORE THAN THEY COME TO IN MAINE.

Down in the State of Maine at a recent meeting it was shown by charts made by the director of the Vermont Experiment Station that in a certain territory the average food per cow was by careful estimates, \$31, while the returns from those same cows was only \$25.80. Stop a minute and think what that means. It shows that the men who owned those cows paid out something like five dollars each per cow for the sake of milking and making up their product. The New Hampshire reports as presented by the same director, at a late meeting in Maine, were as follows: Lowest returns for one dollar expended, 43 cents; highest, \$1.53; average, 93 cents. It was further shown that the cause of this wide variance was that the cows which gave the lowest returns were not fed ensilage and had the least of rich protein food. Improved herds were found on the farms of the men who were making most out of their cows, and so were dairy and farm papers, while these were strikingly absent on the farms of men who were not making their cows pay expenses.

NOT ALL GETTING RICH IN VERMONT.

Still greater interest is added to this report by the statement made therein that in the State of Vermont, in one county, only one herd in four was paying expenses, while in another one in three was giving a money return, and in still another, one in two. This latter result was seen in dairies where the cows were cared for by men who have made the subject a special study. Now, here are some facts that appeal to the everyday farmer very forcibly. We all want to do well with our herds. That is the way we get our living mainly. How can we be sure that we are doing it?

SOME ESSENTIALS OF SUCCESS.

In the first place, and this is a thing of primary importance, it is very plain that we must get better cows. Wherever men have done that, they have at once placed their business on a paying basis.

And then, the matter of feed must receive more attention. How often it is shown that we do not know anything about the most of the rations we are feeding. Even when we do,

we do not understand what the value of that ration is in milk-producing quality. We may know, for we have now accurate tables showing just how much of the different elements all kinds of feed contain.

And then, where is the man who can tell how the individuals of his herd are doing? So much guesswork here! It is wrong, decidedly wrong to go on in this way. We are working ourselves and our sons and daughters and hired men to death, to care for cows that do not give us back anything whatever in the way of an income! Is that all for fun? If not, why are we doing it?

Reliable milk-testers may now be had at small expense. Every man may have one and learn how to manage it if he will. Careful instructions go with every machine sent out by a first-class manufacturer. Where one hesitates about being to the expense of buying one of these testers, or fears that he might not be able satisfactorily to operate it, he surely may take samples of his milk away to some trustworthy man and find out just what every cow is doing. Then it does seem as if we would have the courage to follow up the knowledge thus gained and weed out every cow that is not coming up to a paying basis. Would not that be common sense?

LEARN TO SUCCEED.

This thing is a matter of education with us. Wherever you find a man that is willing to learn, and who does not think he has learned all there is to be known, there you will find one that is on the way to real success in dairying. It is the man who will not take a paper, who cares nothing for what his neighbors may say, that gives us the low figures. How such men can be satisfied to go on earning money for their cows by the hardest work, while their cows should be earning money for them, it is difficult to understand.

Brethren, let's get out of this way of doing business. It isn't business at all, it is either ignorance or carelessness, and the result is the same in either case.—Edgar L. Vincent, in Wisconsin Agriculturist.

In some of the milk studies made at the New York Agricultural Experiment Station (Geneva), it was observed that carbonic acid gas in the milk tended to prevent its souring. This seemed worthy of further investigation; and a series of tests was conducted in which the gas was combined with the milk under varying pressures, using the ordinary soda water chargers and sealing the bottles to retain the gas and exclude the air. With the higher pressures of gas, souring of the milk was delayed indefinitely; as bottles charged under pressures of 175 pounds to the inch remained sweet for five months. The milk thus treated makes an agreeable drink; and it is believed that the process will be valuable for preserving milk for use on sea-going vessels, in hospitals, and elsewhere. Full details of the tests are given in Bulletin No. 292 of the station, which may be obtained on application.

Important Improvements in Cream Separators.

From the very general satisfaction derived from the use of the better class cream separators for some years it has seemed that the separator had reached the point of practical perfection.

As a matter of fact, however, this wonderful implement, productive of so much profit and convenience to the dairy farmer, has from the very beginning, some twenty-five years ago, reached its remarkable development through constant evolution from one stage of capacity, completeness of separation, lightness of running, durability, and general excellence into another, always quite in advance of the previous standard.

Hence it is a little less surprising than would otherwise be the case to note the many and novel changes found in the new 1908 De Laval machines, and still less so perhaps from the fact that the De Laval machines were first in the beginning and their makers have spared no effort or expense to maintain their position in the separator trade.

The changes begin with the supply can at the top and extend to the very lag screws in the base of the machine, and even include a change of color, which is now altered from the long familiar De Laval blue to black because of the japanned finish being baked on, as with sewing machines, in very high temperature gas ovens, which renders impossible the retention of the blue



SWEEPING THE FIELD

THE 1908 IMPROVED DE LAVAL CREAM SEPARATORS

Sales to date more than double any previous year.

New 1908 Catalogue—as interesting and superior as the machines themselves—to be had for the asking.

THE DE LAVAL SEPARATOR CO.

RANDOLPH & CANAL STS.
CHICAGO
1215 & 1215 FILBERT ST.
PHILADELPHIA
DRUM & SACRAMENTO STS.
SAN FRANCISCO

General Offices:

74 CORTLANDT STREET,
NEW YORK.
172-177 WILLIAM STREET
MONTREAL
14 & 15 PRINCE STREET
WINNIPEG
107 FIRST STREET
PORTLAND, OREG.

Better Cream = and more of it

It isn't the fault of your cows if you don't get lots of butter from the churning. The fault lies in your way of skimming milk. You must skim so that the large butter-fat globules are not broken up, then you'll have a better grade of cream—more butter if churned—a better test and a higher price if sold. The

Peerless Cream Separator

is the only machine with a combination hollow and disc bowl—that means doubled capacity—and the hollow bowl doesn't break up the large fat globules. If you have but four cows it will pay you to operate a separator and you can't afford to put your hard earned money into a separator of any kind until you have at least read our new free book telling all about the Peerless way of getting more profits from your dairy. Drop us a postal today while you're thinking about it.

Waterloo Cream Separator Co., Dept. C, Waterloo, Ia.



CREAM WANTED!

After sixteen years of successful business, the Lincolnville Creamery Co. has reached the conclusion that the best creamery method is to go direct to the producer and give him the profits or saving that is made by cutting out the cream-buyer and roadman with his big expense. This expense should be a profit, and belongs to the producer. So we are going to give you Kansas City top for your cream delivered to Lincolnville, Kans., which will make you about two cents per pound more money. Your check is returned to you the same day the cream is received. Give us a trial shipment and be convinced.

THE LINCOLNVILLE CREAMERY CO., Lincolnville, Kans.

color, the extreme heat turning blue into black.

The capacities are increased from ten to twenty per cent, while there is claimed to be a noticeable improvement in the still more complete separation of the butter-fat from the milk, particularly under the more difficult but frequently unavoidable circumstances of ordinary farm and dairy use.

The supply can is now low enough to meet the objection that has sometimes been made to the lifting of milk into it. It is spun from a single sheet of tin-plate, so that it is seamless and absolutely sanitary, while it is globe shaped and thus avoids any splashing over of the milk.

The bowls retain, of course, the distinctive "Alpha-Disc" and "Split-Wing" tubular shaft De Laval features, but have been scientifically re-designed, from engineering considerations, so as to involve the least air resistance in being driven and in the discharge of cream and skim-milk from them.

In consequence, notwithstanding the greater capacities, the bowls are actually smaller than before, while they require less power, which of course means greater ease of operation and saving of wear.

The bowl is likewise more sanitary in its construction, being free from tubes, wings, orifices or any parts which are not easily unassembled and may not be quickly and completely cleaned.

The supporting spindle now sets well

\$26³⁰ SEPARATOR

HAVE YOU SEEN OUR LATEST IMPROVED 1908 MODEL ECONOMY CREAM SEPARATOR? Built on the low down order, easy running, simple beyond comparison. Skims to a trace. The easiest running, closest skimmers, strongest and by far the best cream separators ever made. Prices so low they scream for attention. Look in one of our latest Big Catalogues for cream separators. If you haven't a Big Book borrow your neighbor's; otherwise before buying a cream separator anywhere at any price, on a postal card addressed to us simply say: "MAIL ME YOUR LATEST AND GREATEST CREAM SEPARATOR OFFER." Address, SEARS, ROEBUCK & CO., Chicago.

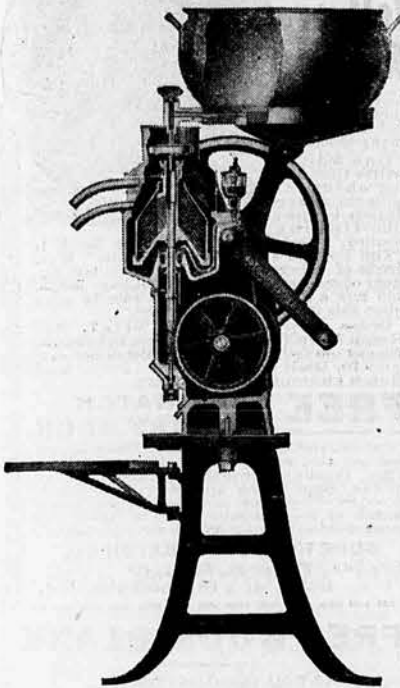
TEXAS FARM LAND

Rich chocolate loam, clay subsoil; can plow every foot; inexhaustible supply fine water at 25 to 50 feet. Soil equal to the best improved land in state selling at \$50 to \$75 per acre. Price only \$15 per acre. Liberal terms. Address for full particulars, E. F. SHELLABARGER, 729 SHUKERT BLDG., KANSAS CITY, MO.

FROM \$5 TO \$15 PER DAY

to men handling our King Separator and Aerator. Needed by every owner of a cow. Thousands in use. Hundreds of endorsements. Free sample and exclusive territory to workers. Our machines sold by agents only. We mean business. De King Mfg. Co., Dept. 29, Chicago, Ill.

up under the bowl, at the center of weight and balance, while this spindle, which is the backbone of the separator and quite as important and sensitive as its human namesake, is new and different from anything made before. It is of the combined spindle and worm screw type, but still detachable from the bowl, the spindle always remaining in the frame where no harm



(A Sectional View.)

can come to it. It is thus said to possess all of the advantages of both the old double and single bowl spindles, with none of the previous disadvantages of either.

The top bearing, which provides the yielding cushion the bowl spindle must have, is most ingeniously simple, hardy and inexpensive. It is merely a circular bowed steel spring surrounding the bronze bushing, unaffected by wear or conditions of use and easily removed and replaced.

A new feature which will appeal to every housewife is the drip shelf coming between the frame and the stool and catching all oil and overflow of milk and water, that would otherwise run to the floor.

Most ingenious is the fastening together of the frame, drip shelf, and stool with but a single bolt, which enables the machine being made, shipped and handled in sections, and at same time makes one complete, solid whole of it when quickly put together with this one screw.

There are swinging and adjustable shelves for both cream and skim-milk receptacles in the smaller sizes of machines, and for the cream can alone where the machine is so large in capacity that the milk receptacle may better be set on the floor.

In the reconstruction of the machines every part has been carefully designed with reference to its extreme simplicity, not only of itself but in its assembling with the other parts with which it must fit, and it is said that the new machines have been completely unassembled down to the last part within five minutes of time, by persons who had never touched a separator before, and then completely reassembled again within ten minutes without the slightest trouble.

The frames are strong looking, smooth, free from recesses, sanitary, and easily kept clean, with the gears and bushings protected against milk or water reaching them.

To the novice perhaps nothing is more impressive than the new design and general outline of the machines, the artistic scheme and graceful proportion of which are quite superior to anything before accomplished in separator building.

The new machines are the subject of much favorable comment by the Experiment Station and other authorities and are delighting many experienced users of separators, who are coming to appreciate some of the difficulties they have had to contend with before and some of the new features which it seems hard to be without once it is known that they can be had.

The accompanying sectional view of one of the machines illustrates some of the new features mentioned.

The Best Lightning Rod.

For some years the well known firm of Dodd & Struthers has been advertising their copper-cable lightning rod in the columns of THE KANSAS FARMER. We now have the pleasure of calling special attention to their large advertisement shown on another page and would ask our readers to go over it carefully and note the announcement made therein. The reader of course will be guided by his own judgment in the selection of lightning rods for his farm or city buildings, but it would always be wise for him to remember that a poor lightning rod is worse than none, as it is actually dangerous. The Dodd & Struthers rods are constructed on right principles. They are composed of a large number of small copper wires, woven together in a cable which at once gives them pliability and an enormously increased surface for the carrying away and dispersing of the electric current. An ordinary solid rod has but a limited surface for this purpose, while the Dodd & Struthers cable has a surface which is composed of the sum of all the surfaces of the many small wires. The small difference in cost which is made between the ordinary and frequently useless or even dangerous lightning rods and the Dodd & Struthers cable, which is composed of good conducting copper wires throughout its entire

length, will serve to fix the decision in favor of the cable every time a comparison is made. Read their announcement and ask them for further information about this twentieth century product of their great factory.

Stock Interests

Judicious Advertising.

HAYES WALKER, BEFORE THE CENTRAL SHORTHORN BREEDERS' ASSOCIATION, AT ST. JOSEPH, MO.

As a rule the best results are secured from advertising. No matter how much you've planned your advertising, how carefully you've figured the location of possible buyers, the mediums to cover that field, your copy, and the dozen and more other items that should be considered, you may think better results would have been secured by using other methods and other mediums. That will probably be true, unless you give to the advertising problem the attention it deserves, and the attention it must have to be made effective.

The amount of your appropriation, perhaps, should be considered first. It takes more advertising to sell fine stock, probably, than almost any other commercial commodity. Department stores who spend \$500 a day in advertising would hardly be content with \$5,000 in sales as the result of the \$500 spent in advertising. Their goods as a rule are sold on too close a margin.

ADVERTISE IN LIVE STOCK PAPERS.

At least ten per cent of your expected receipts would be our idea of the size of your appropriation for advertising. This need not all be placed with live stock papers, although we believe the returns are better from the money invested in the papers than in any other form of advertising. The cost of sale catalogues, of course, is a necessary expense and should be considered a part of the advertising. With this exception, we believe the live stock papers should be placed first. In placing the copy with the different papers, we would suggest that the number of the papers to be used be small enough to permit of large display in each—rather than scattering small advertisements promiscuously in two or three times in many papers. Your results from the readers of the few papers you do use will be greater. You can appeal to them more strongly, and more convincingly. Not so many will see the large advertisements, perhaps because they do not appear in so many papers, but you are more apt to convince those who do take the few papers.

FAILURE DUE TO COPY PREPARATION.

Most of the failures in advertising, we believe, come from failures in copy preparation. The preparing of good advertising copy is a profession. Advertisements with great scare-head lines—Grand Public Sale—giving the number of head to be sold, possibly, the date and the place of the sale, and the simple request to send for a catalogue—is not good copy. Such advertisement is not convincing. It gives no particular reason to the reader why he should want to attend that sale. Do not only state that your offering is good, but show why it is good, and why it is better than can be secured elsewhere—at the same price. Create if possible, a desire on the reader's part to own what you have to sell. Interest the reader first, then create this desire.

Until the buyer has seen your cattle or your hogs, he can judge of it in no way except by the advertising. So make the advertising—in all its details, as attractive as possible. You can "skimp" on your catalogue, and get them done for 50 cents per page perhaps, when you ought to spend \$1.50 to \$2.50, but you'll lose the saving in losing customers that might be attracted by a good catalogue.

Too much of the work of preparing copy is left to the fieldman who often-times has to work somewhat blindly. If you do not prepare the copy yourself, be sure to give the fieldman every opportunity for knowing the good points in your offering, and don't let

POTATOES

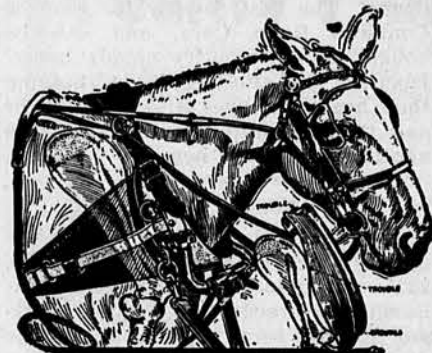
will stand heavy fertilizing of the right kind. Use 1000 to 2000 pounds per acre of a fertilizer containing 10 per cent.

POTASH

It always pays. To increase Potash 1 per cent., add 2 pounds Sulphate of Potash to each 100 pounds of fertilizer. Buy your Potash first. Your dealer can get it if you insist on it.

Let us send you our **Free Book, "Profitable Farming."** It gives certified reports of a great number of experiments made by farmers. It is brimful of scientific, practical, money-making information. Write for it to-day. Address office nearest you:

GERMAN KALI WORKS, Monadnock Building, Chicago
New York—93 Nassau Street Atlanta, Ga.—1224 Candler Building



Double set for \$21.00. Let us hear from you.

HUMANE HORSE COLLAR CO., 1921 So. 13th St. OMAHA, NEB.

SORE NECKS OR SHOULDERS

Are impossible if you use the "Whipple" Humane Horse Collar. Insist on having your new harness equipped with them. Five thousand farmers bought them last season and not one will again purchase an old-style collar. Dealers not selling them may try to talk you out of purchasing Humane Collars; they want to sell their old-style collars and can never sell you sweat pads nor gall cures if you use the Humane Collar—a good reason why you should have them. We ship on fifteen days' trial. One collar fits every horse or mule. Before you buy another collar write for price and testimonials. Recommended by all Veterinary Surgeons and State Experimental Farms. We can also sell you an Emergency Harness. Double set for \$21.00. Let us hear from you.

HUMANE HORSE COLLAR CO., 1921 So. 13th St. OMAHA, NEB.

Blacklegoids

Simplest, Safest, Surest Vaccination for the prevention of

BLACKLEG IN CATTLE

NO DOSE TO MEASURE. NO LIQUID TO SPILL. NO STRING TO ROT.

Just a little pill to be placed under the skin of the animal by a single thrust of the instrument. You cannot afford to let your cattle die of blackleg when a few dollars spent on Blacklegoids will save them. Write for circular.

PARKE, DAVIS & COMPANY
HOME OFFICES AND LABORATORIES, DETROIT, MICH.
NOTICE.—For a limited time we will give to any stockman an injector free with his first purchase of 100 vaccinations.

him have to guess at anything. I speak from experience on this point. Study your offering from every standpoint, and be prepared to give good reasons for buying what you offer. The early preparation of your advertising copy is absolutely necessary in order to get best results.

If there are no good points about your cattle or your hogs, if there is no particular reason why any one should want to buy your stock, except because they may be pure breds, don't waste, money advertising them. Save your money and sell your stock to the packers and the feeders. No matter how judiciously your advertising has been prepared and executed, if you don't back it up with the goods, as represented, your advertising is useless.

USE GOOD ILLUSTRATIONS.

The use of good illustrations is always effective, and helps more than anything else, perhaps, in making your advertising bring the desired results. Likewise, the use of poor illustrations is never effective. It destroys what might otherwise prove to be good advertising. Good illustrations can seldom be made from photographs unless the photographer is a real artist. When you get good photographs, however, we believe you will get better results than from the use of idealized sketches, done to order. Use these illustrations in your catalogues and in your newspaper advertising. Don't use them simply to attract attention, but use them because they make the animals they represent attractive to the buyer. You can attract attention to your advertising by many other means, but it does not always add to the effectiveness of the advertising.

If your appropriation is sufficient, after providing for the catalogues and

the space in the papers, to take up supplementary work, there are dozens of good methods, but it is difficult to show how effective they are. Letter-writing, if done attractively, can not be excelled, but if done poorly, is of no aid to you. Follow-up cards or letters of some kind should always be used, we believe, or you will not get the full results of your newspaper advertising. Unless you have an outstanding offering, of which there are probably not more than two or three in a year, of National character, you can hold your mailing list to at least five hundred names. A series of three letters, sent to these five hundred possible buyers, would cost about \$40, postage included. Send one, say four weeks before the sale, and the others a week apart. Make each letter different from the others, for time is wasted by repeating.

For local advertising, in your own neighborhood and county, you can supplement the advertising in your local newspapers by the liberal use of posters. Put them up on every corner in the county. By all means use the county newspapers as heavily as you can. Their space is cheap. Use support, and you can work up an interest among your local farmers and breeders in no better way than by local advertising. Don't limit your county papers to \$3 or \$5. Give three or four of the best ones \$25 to \$30 each. You can buy two or three pages in each for that, and for a sale of this kind we believe it has no equal in effectiveness in the place you want it to be effective.

The distribution of posters from one end of the county to the other, I believe, usually represents money wasted. There are other methods whereby your efforts can be central-

PLYMOUTH ROCKS.

BLUE BARRED ROCKS, PARTRIDGE WYANDOTTES—Large, vigorous and of Royal breeding. Eggs \$1.50 per 15. Mrs. Minnie K. Clark, Route 9, Lawrence, Kans.

BUFF ROCKS—Pure Nugget strain. Eggs \$1 per 15, \$5 per 100. Mrs. John Bell, Ackerman, Kans.

BARRED ROCKS EXCLUSIVELY—12 cockerels of Bradley strain \$2.50 each. Eggs \$2 per 15, \$5 per 45. Chris Bearman, Ottawa, Kans.

BUFF ROCKS—13 prizes at Leavenworth and Atchison, 1908. Incubator eggs a specialty. Circular free. W. T. Ferris, Box 406, Kilmington, Kans.

BARRED PLYMOUTH ROCK EGGS—for hatching from selected hens headed by cockerels from Mr. Hellabarger's and Mrs. Grey's (Iowa's best breeders) pens. \$1 for 15, \$5 for 100. Mrs. D. L. Dawdy, Arrington, Kans.

B. P. ROCK EGGS—\$1 per 15. Large, thrifty stock and good layers; \$5 per 100. Mrs. W. H. Hamm, Cairo, Kans.

FOR SALE—Fine Buff P. Rock cockerels. Price \$1.50 to \$2.50. Eggs \$1 per sitting. Mrs. C. J. Clinkenbeard, Wetmore, Kans.

EGGS—White Rock, White Langshan, R. C. Rhode Island Red, Buff Orpington, \$1 per 15, \$4.50 per 100. Mrs. Lizzie B. Griffith, Route 3, Emporia, Kans.

30 WHITE PLYMOUTH ROCK cockerels for sale. Eggs from prize winners \$2 per 15, \$5 per 45. J. C. Bostwick, Hoyt, Kans.

DUFF'S BARRED ROCKS—Choice standard stock by standard mating. We breed them now exclusively, and have the very best. Eggs and stock in season. Write your wants. A. H. Duff, Larned, Kans.

YOU CAN HAVE EGGS the year round if you raise Buff Rocks. My birds took five first prizes out of six entries at the Nebraska State fair, 1907, they also scored 90 points and better by Rhodes. Fifteen eggs for \$1.25. For other information address H. M. Stephens, Munden, Kans.

BARRED PLYMOUTH ROCKS—90% to 93% cockerels. Score cards; only a few left. Entered 9 at Eureka show and won special for most part-colored birds scoring 90 and over. Eggs \$1.50 per 15. Mrs. Chas. Osborn, Eureka, Kans.

EVERGREEN POULTRY FARM—Barred Plymouth Rocks exclusively. Cockerels for sale \$1.50 to \$2.50 each. Eggs in season. E. Leighton, Emporia, Kans.

BARRED ROCK cockerels and pullets for sale from high scoring birds \$1.00 and up. Write your wants. Mrs. W. A. Schreier, Argonia, Kans.

FARM BRED BUFF ROCKS. Exclusively. Eggs \$1 for 15. Mrs. Mary E. Morton, Tecumseh, Kans.

BARRED PLYMOUTH ROCKS. Prize winning cocks from the Kansas State Shows of 1907-8. Hens have good range and eggs hatch well. Eggs carefully packed for shipping. \$1.50 per sitting. R. W. Goodman, St. John, Kans.

Buff Plymouth Rock Eggs

I won 1st cock, 92%; 2d hen, 92; 3d pen, 184; at the Kansas State Show, 1908. Eggs from these birds for sale at \$3 per 15. Satisfaction guaranteed. GEO. H. GARRETT, 1908 Logan St., Topeka, Kans.

White Plymouth Rocks EXCLUSIVELY.

For 16 years I have bred W. P. Rocks exclusively, and have them as good as can be found anywhere. I sell eggs from first-class, high-scoring stock at live and let-live prices. \$2 per 15, \$5 per 45, and I pay the expressage to any express office in the United States.

THOMAS OWEN, Sta. B., Topeka, Kans.

BLACK LANGSHANS.

FOR SALE, BLACK LANGSHANS—Four fancy cockerels which had been reserved for use in my own flock. Prices reasonable. Mrs. C. E. Cross, Emporia, Kans.

BLACK LANGSHAN EGGS for hatching. Flock scoring above 93 points. Cockerels in use scoring 95, 96%, 98. Eggs \$2 for 15. Mammoth Bronze turkey eggs \$3.50 for 9. Mrs. C. S. Cross, Emporia, Kans.

CHEAPER THAN EGGS—Good Black Langshan baby chicks, 100 each. March 16th and 23. Order early. Mrs. Geo. W. King, Solomon, Kans.

BLACK LANGSHANS EXCLUSIVELY—Absolutely pure. Eggs for sale, \$2 per sitting of 15. Unfertilized eggs replaced at half price. B. P. Speelman, Beloit, Kan.

BLACK LANGSHANS FOR SALE—Fine farm-raised stock. Also Toulouse geese. Write for prices. T. H. Hutley, Route 2, Maple Hill, Kans.

BLACK LANGSHANS EXCLUSIVELY—Cockerels \$1.00 each. Eggs in season. H. C. Cohoe, Buffalo, Kans.

Black and White Langshans. Winning 1st pen 5 times in 5 shows this season, including State Fair and State Show. Won 12 ribbons on sixteen birds at Topeka State. Eggs, \$2 for 15. Eighteen years a breeder. H. M. Palmer, Florence, Kans.

Tenneholm Black Langshans of Superior quality. Some cockerels with scores of 98% to 94%, cut from 1/4 to 1 1/4 for weight. Write for prices on birds and eggs. Mrs. E. S. Myers, Chanute, Kans.

Black and White Langshans. Winning 1st pen five times in five shows this season, including State Fair and State Show. Won 12 ribbons on sixteen birds at Topeka State. Eggs, \$2 for 15. Eighteen years a breeder. H. M. Palmer, Florence, Kans.

BRAHMAS.

A LIMITED NUMBER OF EGGS for sale at \$1.50 per sitting from choice pen of Light Brahmas; perfect comb, dark points, and legs feathered correctly. Howard Gray, St. John, Kans.

Light Brahma Chickens. Choice pure-bred cockerels for sale. Write or call on Chas. Foster & Son, Eldorado, Kans. Route 4

ized so as to reach more cheaply the kind of people whom you can reasonably expect to become buyers.

The Poultry Yard

CONDUCTED BY THOMAS OWEN.

Inflammation of the Eyes.

I have been a reader of your valuable paper for several years, and now I would like to ask a question in regard to my fowls.

The chickens eyes become sore. First, they would water and then swell. The fowls linger in this state for about two weeks. I have tried dipping the heads in kerosene, but it did not do much good. What shall I do for them? O. P. FORRISTALL, Marion County.

Acute inflammation of the eyes is a form of roup, caused by drafts or colds. As a preventive, the cause must be removed, whether it is cracks in the poultry house or roosting outdoors. The best remedy for roup, is Conkey's Roup Cure, and can be bought at any poultry supply house. Isolating the affected fowls, bathing their heads and eyes with warm water and then anointing with carbolated vaseline may help them.

Poultry Notes.

The writer, last week, visited the poultry yards of Mr. J. C. Baughman, 2215 Lincoln Street, Topeka. Mr. Baughman breeds Buff Cochins chickens and has some of the finest in the State, having won thirteen prizes on them at the last State show. He offered eggs for sale in another part of this paper at very reasonable prices, considering the quality. The poultry house is a model for comfort and convenience, being very substantially built, with plastered walls and ceiling and concrete floors. Mr. Baughman takes good care of his pets, feeding them the choicest of feeds, and supplying them with all the necessities to good health, such as grit, charcoal, beef scraps, etc.

The mild weather we have been having has induced the hens to lay in great shape and calls for eggs for hatching and incubators to hatch them in, are already numerous.

A great many breeders have surplus cockerels for sale at this time of year and some of them are at a loss to know how to dispose of them. The best way is to advertise them in a good advertising medium and THE KANSAS FARMER is as good a one as we know of for this purpose. Several poultry breeders have recently told us that they get better results through THE KANSAS FARMER than any other medium they have tried.

Remember that at this time of year hens are very apt to be fat and consequently the eggs are not fertile. This happens especially with the larger and more sluggish breed of fowls. The remedy is not to feed them too much and give them nothing unless they scratch for it. Throw the feed among the litter and let them pick it out themselves. A hen that is too lazy to scratch, is too lazy to lay eggs and the sooner she is made to work for her living the better it will be for the egg-basket. We do not believe in the hopper system of feeding, where all the hens have to do is to stand up at the trough or hopper all day and do nothing but eat. It is a lazy man's way of feeding and is unprofitable as well as unhealthy for the fowls.

Few people fully understand the necessity of supplying fowls in confinement with plenty of grit or grinding material. We know that fowls swallow small pieces of broken glass, crockery-ware, and sharp gravel. Hens chew their food in the gizzard and the grit they swallow, is teeth for them. The sharper and harder the grit the better the chewing is done, and consequently the better the digestion. As the general health depends greatly

Easy Money for Farmers' Wives

Mrs. Damon Made \$100 in a Short Time

Ladies, You Can Do as Well or Better if You Follow Her Advice



Mrs. Lowell H. Damon, of Clifton, Kas., R. No. 2, has found a way to make easy money right at home. She raises chickens, using two Sure Hatch incubators. Her letter is so interesting and contains such good advice to women on farms and in small towns who want to take up this highly profitable work, that we print it in full. Here is her letter:

"CLIFTON, KAS., Sept. 28, 1907. "Dear Friends:—I have used two Sure Hatch incubators this summer, one 100-egg capacity, the other 50-egg capacity. I must say I have had grand success with the Sure Hatch. I advise all my friends and neighbors to try them. I am sure they will find the Sure Hatch Machines O. K. and the Company perfectly honest in all things, and do exactly as they say. My first hatch from the incubators was a per cent of 92 plus. The second was 83 plus. The third 74 plus. The fourth hatch has just been completed and was a per cent of 83 plus. "I had no trouble keeping the incubators at the right temperature. I am well pleased with their work. All you have to do is to give them a fair chance and they will Sure Hatch. "I will make about one hundred dollars (\$100.00) off my chickens this year. "I started in last spring with 18 thoroughbred Brahma hens and 18 Brahma eggs to set in the incubators. So I think I have the nicest flock of young chickens I ever saw. I don't believe an incubator is made that will beat the Sure Hatch. And it beats the old hen, as there are no mites bothering the hens on the nest—besides, you have chicks in large numbers all at once and when you want them. If I had not

had my incubators I would not have had many chicks."

One woman writes that raising chickens with the Sure Hatch is "just like finding money." Another says the Sure Hatch is "The Farmer's Wife's Gold Mine." Hundreds of other enthusiastic letters tell the story of success with the splendid Sure Hatch, and how a shower of dollars is sure to come when this famous machine is used. Order a Sure Hatch On Trial. One Hatch More Than Pays for the Incubator. We pay the freight. The Sure Hatch not only pays for itself but runs itself. Every Sure Hatch guaranteed for 5 years.

FREE SURE HATCH POULTRY BOOK

Cut out, sign and mail the Free Book Blank and get this grand 100-page Illustrated Book Free. It tells you everything about chickens, raising, Sure Hatch incubators and brood-brooders. Send no money—just the Book Blank or a postal card. Write NOW and begin making money. Write very plainly.

SURE HATCH INCUBATOR CO. Box 42, Fremont, Neb., or Dept. 42, Indianapolis, Ind.

FREE BOOK BLANK

SURE HATCH INCUBATOR CO., Box 42, Fremont, Neb., or Dept. 42, Indianapolis, Ind.

Please send Free Book on Making Money with the Sure Hatch.

Name _____ Address _____

LEGHORNS.

S. C. WHITE LEGHORN EGGS for hatching, \$1.50 for 15 or \$5 per 100. Express prepaid on more than 15. F. E. Sherwin, Gashland, Mo.

S. C. W. LEGHORN EGGS—\$2 per pen, \$1 range, per sitting, \$5 per hundred. Shipping points, Conway Springs and Viola. Book orders early. Mrs. T. R. Wolfe, Route 2, Conway Springs, Kans.

R. C. M. LEGHORN EGGS—60 cents per 15, \$3 per 100. Pullets began laying in September; winter layers; like produces like. H. A. Cowles, Elbley, Kans.

S. C. W. LEGHORN—Cockerels, standard bred, farm raised, 50c each. W. W. Cook, Russell, Kas.

EGGS from high-scoring laying strain of Rose Comb Brown Leghorns and Mammoth Pekin ducks, 15 for \$1, 100 for \$5, 200 for \$8. Mrs. J. E. Wright, Wilmore, Kans.

S. C. BROWN LEGHORN EGGS—30 for \$1, 100 for \$3. Jos. Caudwell, Wakefield, Kans.

S. C. B. LEGHORN EGGS—30 for \$1, 100 for \$3. Mrs. P. E. Town, Route 3, Haven, Kans.

S. C. BROWN LEGHORNS—Eggs from first prize birds scoring up to 96. \$2 for 30. Cockerels \$1 and \$2 each. Score cards. S. McHarg, Box F, Wakita, Okla.

STATE FAIR WINNERS—Rose Comb Brown Leghorn cockerels for sale. Eggs for hatching. Write for prices. Rapid delivery. Rufus Standiford, Reading, Kans.

STANDARD-BRED S. C. Buff Leghorns founded by stock of prize-winners of Chicago and St. Louis World's Fairs, and have taken first wherever shown. Stock for sale; eggs in season from pens scoring 90 to 95. No. 1 pen, \$2.50 for 15; No. 2, \$1.50 for 15. S. Perkins, 801 E. First St., Newton, Kans.

R. C. Rhode Island Reds

Eggs from first pen headed by 3d prize cockerel at Kansas State Show, 1908, \$2 for 15; 2d pen \$1.50; good range flock, \$1 for 15; incubator eggs, 50 or more, \$5 per 100. Mrs. Wm. Roderick, R. 1, Topeka, Kans.

S. C. Brown Leghorns

Eggs from our beautiful range flock; standard bred, heavy layers, improved size, full of vigor. \$1.50 for 30 eggs, \$4 per 100 eggs. L. H. Hastings, Quincy, Kans.

S. C. W. LEGHORNS and B. P. ROCKS. Eggs now ready from our 19 mated pens. No more pullets or hens for sale. A few cocks and cockerels at reduced prices. Send for catalogue of R. C. W. Leghorns and B. P. Rocks. Elenora Fruit and Poultry Farm, Centralia, Kans.

GALVA POULTRY YARDS

R. C. W. Leghorn and White Wyandotte stock for sale. Eggs in season. First pen Leghorns headed by first cockerel Madison Square Garden, N. Y. Write your wants. JOHN DITCH, Prop., Galva, Kans.

S. C. W. Leghorn Cockerels

with score cards \$2 to \$4 each; un-scored birds \$1 to \$2. Eggs \$1 and \$1.50 per 15.

F. W. MANGELSDORF, Atchison, Kans.

BUFF ORPINGTONS.

S. C. BUFF ORPINGTONS—Prize winners, big shows. Best winter layers. Great money makers. Breeders, eggs, baby chicks. Catalog tells. W. H. Maxwell, 1906 McVicar Ave., Topeka, Kans.

LARGE BUFF ORPINGTONS—Eggs for sale, \$1.25 for 15. Mrs. Frank Henning, Route 1, Garnett, Kans.

CHOICE Buff Orpington and B. P. Rock cockerels. Cattle pups and bred hitches. Send for circular. W. B. Williams, St. Joe, Neb.

upon good digestion, diseases may often be traced direct to a lack of proper grinding material or hen's teeth. Towards the end of a long, close winter, where fowls deprived of their usual range and kept on an exclusive diet, begin to show signs of a diarrhea, you may rest assured that it is not the dreaded cholera, but a lack of grit that causes the trouble. Such attacks will disappear as soon as the fowls are given grit, for it is not only a good thing for them, but it is absolutely necessary for their health. Sharp flinty sand or gravel is the cheapest grit to be had, but if this can not be had then old broken dishes and earthenware pounded up into pieces about the size of a grain of corn or smaller. Smooth, round gravel is of no use whatever, as all rough, sharp-edged grit, is voided as soon as it is worn smooth by the action of the gizzard. Different kinds of grit are kept on sale at all poultry supply houses and at reasonable prices.

If you do not keep pure-bred fowls, make up your mind at once to do so and discard your scribs. It will not cost much to get a start in pure-breds only a few dollars for two or three settings of eggs. After you make up your mind as to what breed you would like to have, look over the advertisements of the breeders in this paper and send for the eggs. The progeny will prove not only a pleasure to you, but a source of income as well.

Selling Eggs for Hatching.

R. J. RYTHOR IN THE MICHIGAN FARMER.

The season has again arrived when inquiries for eggs for hatching begin to arrive. As each season passes and one sums up the "kicks" and "complaints" he has received and counts up the stock that has been hatched and raised from eggs from his yards, he generally finds that kicks predominate and he feels like selling no more "hatching eggs." But as another season comes along and his old satisfied customers, without solicitation, begin to call for eggs, he forgets the unpleasant side, places his advertising and begins over. He naturally does not expect orders from the kickers, for even if they know the fault of poor hatches to be with themselves they had much rather order in a new field than to admit themselves at fault.

Those who sell eggs for hatching will always find kickers, and while the aim should be to please all, no sleep should be lost over the fault-finders. On the contrary, new efforts should be put forth to increase the list of reasoning, satisfied customers.

One trouble is that the average purchaser expects more than he pays for. The bulk of the hatching-egg orders come, either from persons who wish to hatch some males for a change of

WYANDOTTES.

WHITE WYANDOTTES, WHITE AFRICAN GUINEAS—Eggs from prize-winning stock, \$1 per sitting, \$4 per 100. Cockerels and Guineas, \$1 each. Mrs. L. D. Arnold, Enterprise, Kans.

GOLDEN WYANDOTTES—Eggs for hatching from my prize winning stock. From 1st prize pen, eggs \$2 per sitting; 2d pen \$1.50. Eggs from prize winning M. B. turkeys \$3 per 9. Satisfaction guaranteed. Mrs. A. B. Grant, Emporia, Kans.

WHITE WYANDOTTE EGGS \$1 per 15, \$5 per 100. Good stock at reasonable prices. Mrs. W. L. Bates, Topeka, Kans.

PARTRIDGE WYANDOTTE EGGS—Pen headed by 1st cock at Wichita; winner of silver medal at Chicago, 1907. \$3 per sitting, two sittings \$6. Pen headed by 1st cockerel at St. Joseph, \$2 per sitting. 1 won 1st cock, 1st cockerel, 1st pullet, 1st pen at St. Joseph, 1908. R. E. Ruse, Sabetha, Kans.

SILVER LACED WYANDOTTES—1st prize winners. Eggs from 1st pen \$1.50 for 15, second pen \$1. Mrs. C. C. Henderson, Solomon, Kans.

WHITE WYANDOTTE EGGS for hatching \$1 per 15 or \$5 per 100. Mrs. E. F. Ney, Bonner Springs, Kans.

GOLDEN WYANDOTTES—Prize winners. For eggs write Geo. W. Shelley, 1620 Poyntz, Manhattan, Kans.

WHITE WYANDOTTES, S. C. W. Leghorns, W. H. turkeys; hens, cockerels and pullets from high-scoring stock at reasonable prices. Write A. F. Hutley, Route 2, Maple Hill, Kans.

BROWN'S WHITE WYANDOTTES—Ahead of everything; stock for sale; eggs in season. I have the English Fox Terrier dogs. Write me for prices and particulars. J. H. Brown, Clay Center, Kans.

WHITE WYANDOTTE EGGS

From winners at Kansas State, Nebraska State, Missouri State, and St. Joseph big Interstate Shows. Males score to 96, females to 96½. Eggs \$1.50 to \$10 per sitting. Catalogue free.

BRIDGEMAN & YORK,
Box 102. Forest City, Mo.

RHODE ISLAND REDS.

R. I. RED EGGS from prize winners and high-scoring birds, in both combs. Circulars free. G. D. Willems, Inman, Kans.

S. C. R. I. REDS EXCLUSIVELY—Specials for shape and color. My birds won more premiums at State Shows than any other exhibitor. R. B. Steele, Station B, Topeka, Kans.

R. I. WHITE EGGS—Bred from trap nest layers. Circular free. G. D. Willems, Inman, Kans.

SINGLE COMB BUFF ORPINGTONS—Eggs from the birds that have won the most prizes at State shows; 67 prizes and 4 silver cups in 1907-08. Infertiles replaced free. Send for circular. Frank Hill, Sabetha, Kans.

R. C. RHODE ISLAND REDS—exclusively. Eggs 75 c per 15, \$4 per 100. D. B. Huff, Route 1, Preston, Kans.

ROSE COMB R. I. REDS—State Show winners. Eggs \$1 and \$2 per 15. Mrs. M. Rees, Emporia, Kans.

EGGS FOR HATCHING—R. C. Rhode Island Reds. High scoring, wonderful layers, none better. 15 for \$1.25, 30, \$2.25. A. A. Nieweg, High Glade, Mo.

S. C. RHODE ISLAND REDS, EXCLUSIVELY—All firsts at State Fair. Eggs—prize pen, \$2; flock, \$4 per 100. Belle Tyler, Haven, Kans.

ROSE AND SINGLE COMB RHODE ISLAND REDS—I won 1st, 2d, 3d, 4th and 5th on cockerels, 1st hen, 1st pen and 4th pullet; also color special on cockerel at Kansas State Poultry show at Topeka, January, 1908. Stock \$1 and up. Eggs, \$1, \$2, and \$3 per 15. A. A. Miller, Route 4, Eagle Hill Ranch, Platte City, Mo.

BUFF COCHINS.

EGGS—from prize-winning and high-scoring Buff Cochins. Took nineteen prizes at Kansas State Show 1908. As good as can be found anywhere. Eggs from 1st pen \$3 per 15, \$5 per 20. 2d and 3d pens, \$2 per 15. J. C. Baughman, 2215 Lincoln St., Topeka, Kans.

BLACK SPANISH.

FOR SALE—Whitefaced Blank Spanish. Hens \$2 each. Cockerels \$2 each. pullets \$1.50 each. Chas Hobbie, Tipton, Kans.

DUCKS.

FOR SALE—Indian Runner duck eggs \$1.50 per 15. Also some extra fine drakes \$1.50 each. Mrs. Maggie White, Clements, Kans.

Indian Runner Ducks.

First prize winners at World's Fair, New York and Chicago. White Wyandottes, white as snow. State show winners. Silver Cup winners. Score to 96. Eggs \$2 per 15, \$5 per 50. Catalogue free. Expert poultry judge. Write me for terms and dates.

R. L. Castleberry, Box 19, McCune, Kans.

TURKEYS.

FOR SALE—An extra fine bunch of young M. B. turkeys from stock scoring up to 96 points. I took 1st cock, 1st cockerel, 1st and 2d hen, 1st and 2d pullet, 1st and 2d pen at Central Kansas Poultry show at Newton, Kans., this fall. Extra prices on young stock up to February 15. Eggs in season \$4 per 11. G. W. Perkins, Route 4, Newton, Kans.

MISCELLANEOUS.

IMPORTED HARTZ MOUNTAIN AND ST. ANDREASER CANARIES For particulars address DEER LAKE PARK, SEVERY, KANSAS.

EGGS from Toulouse and Emden geese; Pekin, Rouen and Muscovy ducks; peacocks; Bronze and White Holland turkeys, Buff, White and Barred Plymouth Rocks; White, Brown and Buff Leghorns; Houdans; Buff Cochins; Cornish Indian games; Buff, White and Silver Laced Wyandottes; Rhode Island Reds, Buff Orpingtons, S. S. Hamburgs, Black Langshans, White Brahmas, Buff Cochins, Bantams, Seabright Bantams; Pearl and White Guineas; Dogs and fancy pigeons. I am going to make it a specialty in furnishing eggs this year by the setting; 50 and 100 eggs, \$1 per setting. Duck eggs, 18 for \$1. Poultry eggs, 15 for \$1. Write for free circular. D. L. Bruen, Platte Center, Nebr.

High Class Poultry and Eggs For Sale

Fifteen best varieties. For catalogue and bargains write
T. J. PUGH, Fullerton, Neb.

blood in the flock or to get the nucleus of a flock for future breeding operations. Naturally they prefer to hatch such fowls quite early in the season, but they must know that fertility in March is very apt to be less satisfactory than would be the case in April or May, especially in a northern climate where the hens are prevented from getting out much between November and April. The question, therefore, is whether a smaller number of early hatched chicks is more desirable than a larger number hatched a few weeks later.

The majority of ordinary poultrymen order eggs that cost from \$1 to \$2 per setting, and they know that they can not get a good cockerel, after he is grown for less than \$2. I figure that they may reasonably expect a 50 per cent hatch early in the season, and if they get one or two males suitable for their use they should feel that they are getting breeding males cheaply, for there would likely be two or three good pullets thrown in. If the pullets should prove of better quality than the cockerels, the old males can be mated with them and produce males for the next season's use. This method of introducing new blood through the females is practised by many and is equally as good, and may prove better, for the building up of a brown-egg strain of layers, as you can make sure that the stock from which the new blood comes produces brown eggs, and you can not be sure the cockerel will bring improvement in that direction.

EFFECT OF AGE ON HATCHABILITY OF EGGS.

There is one thing that would work a vast improvement in results and bring about a much more satisfactory state of affairs between buyers and sellers of eggs for hatching, and that is for the sellers to ship freshly laid eggs, and the buyer to be in position to use them as soon as they arrive, or after a rest of about twenty-four hours. It would also be better, in my opinion, if eggs bought in this way, having been shipped some distance and about the freshness of which there is a question, were given to good hens to hatch instead of putting them into an incubator. It is conceded by good authorities that better results will be obtained from eggs, after they are eight or ten days old, by the hen, whereas with strictly fresh eggs one method will produce as many and as hardy chicks as the other.

The spring of 1907 I shipped two different lots of one hundred eggs each to two different customers at nearly the same time. Both lots were freshly laid and they were shipped about the

SCOTCH COLLIES.

ANOTHER LITTER of those fine Scotch Collie puppies. Get your order in early and get the choice ones. A pedigree with every puppy. Registry parents. D. J. Dawdy, Jewell City, Kans.

SUNNYBRAE COLLIE CLUB, REGISTERED—Sunnybrae collies for sale. Imported Sunnybrae; Masterpiece at stud, for \$15. F. R. Clark, Manager, Bloomington, Ill.

SCOTCH COLLIES—Pups and young dogs from the best blood in Scotland and America now for sale. All of my brood bitches and stud dogs are registered, well trained and natural workers. Emporia Kennels, Emporia Kans. W. H. Richards.

Scotch Collies.

Fifty-seven Collie puppies just old enough to ship. Place your orders early, so you can get one of the choice ones.
Walnut Grove Farm, Emporia, Kans.

INCUBATORS AND BROODERS.

Incubators and Brooders


If you want a good incubator in a hurry write to the undersigned. He keeps the Old Trusty Incubator (hot water) and the Compound (hot air), two of the best incubators made. Also the Zero brooder, no better made. It pays to buy a good brooder. No use hatching chicks without a good brooder to raise them. The Zero will raise every chick you put in it.

THOMAS OWEN, Sta. B, Topeka, Kans.

Hatch Chickens by Steam with the EXCELSIOR INCUBATOR or WOODEN HEN

Simple, perfect, self-regulating. Hatch every fertile egg. Lowest priced first-class hatchers made. GEO. H. STAHL, Quincy, Ill.

Dimes Or Dollars



A hen does well or poorly according as her food supplies necessary nutriment in right proportions. Doubtless you give a nutritious ration, but does the *larger part of it digest*? If not, your profits will be in dimes rather than dollars.

It is easy to see why this is so. The domestic hen is a captive; she is denied the privilege of selecting food at times and in ways that Nature meant she should. Man attempts to coax and cajole her into laying many eggs under these unnatural conditions, and it is evident there can be little success until natural conditions are restored as far as possible.

If you make the hen derive from her food the same elements she would get when at liberty, your end is gained. This can be largely brought about by giving once a day a small portion of

DR. HESS Poultry PAN-A-CE-A

It is the prescription of Dr. Hess (M.D., D.V.S.) and according to the testimony of expert medical men, contains the elements necessary to make the hen *digest perfectly* by far the greater portion of her food, and to *derive* from it increased power to produce bone, flesh, feathers and eggs. Poultry Pan-a-ce-a contains also iron for the blood and nitrates to expel poisonous matter. It makes young chicks grow fast and fits fowls for market in the shortest time. It is also a germicide and prevents roup and other poultry diseases. Endorsed by poultry men in United States and Canada. Costs a penny a day for 30 hens. Sold on a written guarantee.

1½ lbs. 25c; mail or express 40c { Except in Canada
5 lbs. 60c; 12 lbs. \$1.25 and Extreme
25 lb. pack, \$2.50 West and South.

Send 2 cents for Dr. Hess 48-page Poultry Book, free.

DR. HESS & CLARK, ASHLAND, OHIO.
Instant Louse Killer Kills Lice.

Why Don't You Send Your Name to Johnson

INCUBATOR MAN

And let him help you in raising chickens? He doesn't know it all, but his famous

"Old Trusty" Incubator

built on experience, not theory, and absolutely automatic, is giving satisfaction to more than 100,000 users. It will save you money. It is sent on

40, 60 or 90 Days Trial

and is guaranteed to produce 75% hatches or better. Takes less oil and gives less bother. Is simplest and surest. Get Johnson's Big Free Book. A poultry book by a man who knows. 176 pages. Every page a poultry sermon. More than 300 pictures. Send your name to

M. M. JOHNSON, CLAY CENTER, NEBRASKA

OUT DOOR BROODERS

We furnish the equipment together with the plans to build your own Brooder on scientific principles at a low cost. Send for circulars to-day of our fresh air, out-door brooder heater, also incubator and brooder lamps, thermometers, regulators, lamp burners, drink fountains, chick food, etc. Agents for the Cyphers Incubators. Address, Topeka Supply House, 7th and Quincy, Topeka, Kans.

The Townsend Automatic Trap Nest

Awarded first premium Kansas State Fair, 1906-07. Invaluable to poultry raisers. The hen, on going in, closes the gate behind her, shutting out all other fowls. At any time she wants out for food or exercise, she can easily release herself. By simply lowering a latch, it is converted into a "Trap Nest" that is absolutely reliable. These nests are manufactured under our own patent. Write us for information and testimonials from users. AGENTS WANTED. Address

P. G. TOWNSEND & CO., 629 E. 6th, Hutchinson, Kans.

You'll Start Raising Chickens When You Get My Price

Let me quote you my 1908 low price for a Chatham which will start you making extra chicken profits when you read my valuable new free book.

Chatham Free 1908 Book

Gives you the benefit of my 50 years' successful experience FREE—write nearest office for it today.

The Manson Campbell Co., 143 Wesson Av., Detroit, Mich. 1308 W. 11th St., Kans. City, Mo. 82 E. 3rd St., St. Paul, Minn. Dept. 2, Portland, Ore.

FOR OUR 100 EGG HATCHING WONDER

A substantial practical incubator, 26 inches long, 21 inches wide, 14 inches high. Triple walls, hot water heat, aluminum coated tank, automatic regulator, nursery. With brooder \$11.45. To points west of Rockies, incubator, \$9.35; with brooder, \$14.70. Order today. Money refunded if not as represented. 80-page catalogue free. Established 1867. GEO. KETEL CO., Quincy, Ill.

\$7.15

Buy the Best 120-Egg Incubator

Ever Made

\$4.35 Buys the Best 100-Chick Brooder

Both Incubator and Brooder, ordered together, cost but \$11.00. (Freight Prepaid East of Rockies.) Incubator is double walled all over, copper tank and boiler, hot-water heat, self regulator, nursery, high legs, glass door. Brooder is the only double walled, hot-water brooder made. No machines at any price are better. Write for our book today, or send the price now under our guarantee and save waiting.

Satisfaction Guaranteed.

BROODER

Belle City Incubator Co. Box 18, Racine, Wis.

same distance. Each customer set about one-third of his lot promptly on arrival and both had very satisfactory hatches. The remainder of the eggs in each case were held two or three weeks before setting, and the result was only a few chicks in either case. This shows pretty plainly that had all eggs been incubated promptly a very satisfactory hatch would have resulted, and that the poor results could not be laid to anything but the age of the eggs.

GETTING A START WITH A NEW BREED.

I am inclined to think that where one wishes to start with a different breed it is more satisfactory to buy a small breeding pen than to depend upon buying eggs. The eggs then can be used when newly laid, and a small pen will give sufficient chicks to supply breeders the second season.

Another advantage is that you can know the quality and size of the stock, and know that you are not rearing chickens which are as likely as not to develop some decidedly objectionable faults which will be hard to breed out.

GIVE CUSTOMERS VALUE RECEIVED.

I have often offered to send a duplicate setting, after the rush season was over, at half price in case the purchaser had bad luck with the first lot. This gives one market price or a little more for the second lot, and the customer will feel better about it. The pleased customer is the one who comes again, so in order to lengthen our list of such we must give value received and a little more.

There is no doubt that a courteous, neatly written letter creates a good impression, and as politeness is a cheap commodity and lubricates the wheels of business, it is short-sightedness to allow one's self to write a business letter when a "kick" has spoiled his temper to an extent that he can not refrain from answering it kind. Diplomacy will often save a good customer that would be driven to a competitor by a letter written when in anger.

You should use as much care and judgment in selecting eggs for hatching as you would in picking out parent stock. Do not choose very large eggs nor small ones. Those that are medium to good size are best, and those of perfect shape. Some people believe the long eggs produce more males and the shorter, round ones more females, but the shape of the egg has nothing to do with it. Perhaps you have noticed that some hens lay long eggs, some short ones, others flat or irregular, and if you have observed closely, you can tell a certain hen's egg by the shape. If you kept selecting eggs of a certain type and color, you would eventually get fowls that would all lay eggs of this shape and color, that is all. The shape of the egg has nothing to do with the sex. We select eggs that are medium in size and uniform in shape and color. Some hens lay eggs with porous shells. Hold them up to the light or egg tester and you will readily discover such eggs. They should never be used for incubation, for they will not hatch. Of course, such a hen should be taken from the breeding pen.

Thrifty Talks No. 56 By A Farmer

Brain Power or Brute Power —For You—Which?—

The man who thinks—who mixes brains with his labor—gets a gas engine which multiplies his power to do things and adds to his comfort and

PROFIT
With his engine he grinds his feed which increases its food value 25%, cuts his fodder, saws his wood, generates electricity to light his house and barn, pumps his water, runs his cream separator, washing machine, etc.

He uses his engine to do everything possible since it is cheaper and increases his capacity so that he gets more done with less work and greater profit.

Truth founded on experience—A little booklet called "Thrifty Talks" has come to our notice. It gives many valuable suggestions. It can be had free by writing at once to Smith Mfg. Co., 158 E. Harrison St., Chicago, Ill., mentioning this paper and asking for book No. 22X20

The man who toils and slaves only with his hands, subtracts from his profits and divides his comforts.

Things are different now from what they were a few years ago to keep pace with the times. We should adapt ourselves to improved methods to meet present conditions.

DID YOU MAKE \$500 TO \$2,000 AN ACRE FROM YOUR CROP LAST YEAR?

If you did not why didn't you. Farmers here in Washington did and far more than that; even up to \$7,000 from the crop off of one acre in 1907; from Buerre D' Anjou pears, Mr. Forman was the man; he sold the pear crop from 54 trees on one half acre on the tree for \$3,500.

If Washington farmers and fruit raisers can do this so can you—but—you cannot do it at your present home, you must go where the soil, climate and irrigation blend just right; then you can get those \$500 to \$2,000 per acre profits from the fruit from one acre in a single year; and if you plant the commercial kinds of fruit and give them the right care and attention you can make even a far bigger record than that just as Mr. Forman and others have done.

Looks big, looks unreasonable don't it, maybe so to you, but it is the fact nevertheless, which you will find out if you come to investigate for yourself.

Now we were joking when at the top of this advertisement we asked you if you had made from \$500 to \$2,000 per acre from your last year's crop—we know you could not make that amount of money from forty crops where you now live—the writer knows Dakota, Minnesota, Kansas and other Mississippi valley states just as well as you do for he has lived in them, farmed in them.

Say, why in the world do you stay where you can only get a profit of from \$4 to \$15 an acre and sometimes less than that from a year's crop when you can remove to a balmy, delightful climate, sun-kissed and with no winter to speak of and make from \$500 to \$2,000 an acre a year from your fruits, yes, even far more than that?

But wait—let's see what some fruit raisers have done. How would you like to be in the shoes of H. M. Gilbert who sold last fall \$15,192 worth of fruit from 13 acres, an average of \$1,168.61 per acre. Now just confess right here—your crop from your whole farm was not very much more than Mr. Gilbert's profit from ONE ACRE. Now honest was your profit from 160 acres very much more?

Now if you don't like fruit and don't care for it no matter how much profit in it, how would

the experience of E. F. Bohannon fit who sold the crop of 1907 from 480 acres of alfalfa and 18 acres of potatoes for \$60,000. If you are farming a 498 acre farm we will wager you did not get an average like Mr. Bohannon did of \$122.50 an acre from your crop of 1907, and the experience of Mr. Gilbert in fruit and Mr. Bohannon in alfalfa and potatoes is just that of many others, and they have not made the biggest profits either.

These astonishing results were achieved in what was once a sage brush desert that you would not have given ten cents an acre for, but which under irrigation is now densely settled with land up to \$1,000 and even \$2,000 an acre and still rising fast

At Patterson on the Columbia River, in Benton County, Washington,

you can get you a 5 acre, a 10 acre, or 20 acre or any sized farm you want of splendid land right on a new railroad and at a new, fast growing town for only \$137.50 to \$275.00 per acre and pay a little down and the balance on easiest terms, so you can use your means in improving your land.

THE REASON THE LAND IS SO CHEAP is because it is a new irrigated fruit country, thus letting you in right at the start so you can reap the big profits that come with the settlement and development of an irrigated region, and the climate will charm you too. Your wife, your kids, how they will revel in it and enjoy it. Roses, vegetables, green lawn always, apples, peaches, pears, cherries (big as plums), grapes such as you never saw, apricots, nectarines, watermelons, muskmelons, cantaloupes, tomatoes, everything in such luxuriance as only an irrigated warm climate can give and all in big demand in Portland, Tacoma, Seattle, Spokane and the East.

Now suppose you write right now for our free pamphlet "Results of Irrigation." You are only doing justice to yourself to look this up. (Yes, winter weather now O. K. at Patterson; plowing and other farm work under way; has been all winter.)

Write or better go and see for yourself.

MUTUAL REALTY COMPANY, 304 Pioneer Bldg., Seattle, Wash.

Miscellany

Settling in the Short Grass Country.
EDITOR KANSAS FARMER:—For the benefit of my friends who take THE KANSAS FARMER I will try and tell something about this country called the "short grass country."

I came here last March and so far like this country fine. It is the place to get cheap homes, but cheap land here will soon be a thing of the past. We have a nice level country with plenty of good, soft water. Most of the wells are from 80 to 100 feet deep, on the upland, and you need never to be afraid of pumping them dry.

Alfalfa grows well on the bottoms. I have a field of alfalfa on the upland, sown last spring, that looks very good, and so have several other farmers. Wheat is looking very good and grows better on the upland. Corn will sometimes make forty bushels and sometimes nothing to speak of. Early corn grows the best. Wheat, barley, oats, millet, speltz, Kafir-corn, cane, and Milo maize are some of the principle crops raised here, though potatoes and fruit grow well. I think nearly all crops can be grown when the country gets older.

What we need here is a good class of farmers that will farm as they do in the Eastern States. People here, as a general rule, try to farm to much.

We have a good prospect of having a railroad built six miles north of us this spring, which will help this country right along. We now are nineteen miles from a railroad. We have telephones and good schools but no churches in the country, though we hold services and Sunday School in the school houses.

I now can count ten houses where there was but one when I first came, so you can see how rapidly this country is being settled.

If anyone wishes to know the price of land here I will say it is selling from \$1,200 to \$1,300 per quarter, that is nice, smooth upland, raw quarters. Bottom-land sells from \$1,400 to \$1,600, that is unimproved quarters. Every foot of it can be farmed, for there is no rock.

We have had about twelve inches of very wet snow, so far, which is very good for our late wheat.

Finney County. J. C. FLODY.

Commendation and Admonitions.

EDITOR KANSAS FARMER:—I have been a constant reader of THE KANSAS FARMER for twenty-five years or more, and I find much to commend, especially along lines of stock- and poultry-breeding. So far as my judgment goes I do not think the paper has an equal. But I find the editor injects a good deal of his political ideas into the paper. This is unfair to its readers, because among its patrons there are all shades of political belief and no one wishes to read political ideas in an agricultural paper. These ideas should be given through the medium of political papers. But what I wish to make a kick on are those long-drawn-out essays by agricultural students, and sometimes by the faculty. A notable example is in the January 16th number of THE KANSAS FARMER by a student. There are four columns of advice and counsel to farmers that should have been condensed to two or less columns. Life is too short to wade through so much theory and repetition. How long would it take a farmer to test seed for seventy-five to three hundred acres according to his system? Life is entirely too short, and labor too expensive for any such theories to be practical with the average Kansas farmer. I admit that for a few acres the plan is all right.

About kiln-drying or artificial drying of corn in Kansas is all tommyrot. Why, my boys and I have raised corn in Central Kansas in the Smoky Hill Valley for forty years, and never had trouble with seed germinating when the soil was in proper condition. Even corn that was planted late in June after the flood of 1903 was found to germinate pretty well. There is no



Write Me Today Sure

GALLOWAY
A Word to Cow Owners
I want to tell you there isn't a farmer in this country, owning three or more cows, who can afford to be without a Galloway cream separator, when you can buy one at my low prices and on my liberal terms. Remember, I sell my separators direct from factory to farm at one small profit, so can save you 50 per cent. Now, here is what I will do. I will put one of my New Improved Galloways in your dairy and let you try it 30 days free. If it is not all I claim for it, send it back and I will refund your money and pay freight both ways. You need not send me one in advance. Or if you wish you can buy a Galloway on six months' time. There is nothing to prevent your owning a Galloway. Just write me for my catalog and special offer. WM. GALLOWAY.

I sell my Separators on 30 days free trial backed by my \$25,000 Guarantee.

I Want Every Reader of the Kansas Farmer to Get My Special Proposition

THE GALLOWAY

CREAM SEPARATOR Sold Direct From Factory to Farm at One Profit

Get My Prices. Send For My Catalog. Get My Separator.

I believe there are a lot of farmers today who would buy a cream separator if they could get a strictly high-grade, up-to-date machine at a fair price. Now, then, here is your chance. I am selling you a cream separator of the highest quality, and will save you a lot of money on it. I will guarantee it. My separators bear the stamp of Galloway quality and are sold to you the "Galloway" direct from my factory to your farm, and my thousands of satisfied customers are proof that it is "The Only Way."

Now I want to send you my new 1908 cream separator catalog, telling all about the Galloway. With it I will also send you my special proposition which will help the first buyer of a Galloway in any section to pay for a machine without any work or trouble. Don't buy another make of separator under any conditions until you have first investigated my offer. I can save you from \$35 to \$65 on a strictly high-grade separator—the kind you want in your dairy. This is money you might just as well have to put back in your farming.

GET MY NEW 1908 FREE CATALOG

I will gladly send my catalog to any farmer interested in dairying. It is a beauty and gives a lot of interesting facts about dairying besides telling all about my separators. Now just drop me a postal and let me send it to you by return mail. I want you to know about the Galloway double wing skimming device, the closest skimming, and easiest cleaned bowl in any separator; its low supply can and protected working parts, its simplicity of gearing and beauty of design; its ease of operation and sanitary construction; its high-grade materials—best that money can buy, etc. In fact, there is not a thing about the Galloway that is not fully shown in my booklet. It is impossible to tell you all about my separator here so do me the personal favor to send for my catalog and special proposition and let me save you over 50 per cent on a cream separator. Write me today.

WM. GALLOWAY, Pres., THE WILLIAM GALLOWAY COMPANY
383 Jefferson Street, Waterloo, Iowa

Just write your name and address on margin of this page, tear out ad and send it to me.



better place to winter seed-corn than in a slat corncrib provided the rain and snow are kept out.

The Government and State have furnished millions of dollars for the State Agricultural College in the past twenty-five or thirty years, and aside from a good practical education furnished a large number of our young people what practicable benefit has the experimental part of it been to the State? True, we get a great many long-drawn-out theories, but have they developed a new or superior variety of corn, or wheat, or anything else? They claim to have improved some varieties of each of the above-named grains. See what Burbank of California has done with fruits, flowers, and vegetables. Would it not be a good idea to send a few of our bright young Jawhawkers out there and get his theory and practise? Why can't we produce a breed of corn with ears eighteen inches long and grains three-quarters of an inch deep? My stalks of corn produce the ears nine inches in length. It would not take any more nutriment to produce one ear eighteen inches long than two half as long. I have the grains three-quarters of an inch long; if I can get the cobs the required length I will have a bonanza sure. Is it not worth striving for? Such a distinct variety would double the yield of corn and add more dollars to the wealth of the State than all the theories of a lifetime.

My communications to THE KANSAS FARMER have been few and far between in the past but I read all the numbers. There used to be written in our copybooks something like this, "Our best friends are those who tell us of our faults, and teach us how to correct them." I have had my say and will receive my condemnation or commendation as readers' judgment dictate. WM. RAMSEY.

Dickinson County.

THE BLOSSOM.

Only a little shrivelled seed—
It might be flower or grass or weed;
Only a box of earth on the edge
Of a narrow, dusty window ledge;
Only a few scant summer showers;
Only a few clear, shining hours—
That was all. Yet God could make
Out of these for a sick child's sake
A blossom—wonder as fair and sweet
As ever broke at an angel's feet.
—Henry Van Dyke.

The Kansas City Hereford Sales.

R. F. Thornton, manager of the big March sales of Hereford cattle to be held in Kansas City, writes: "Just a word in regard to the big Hereford cattle sale of Funkhouser, Gabbert, and others to be held at Kansas City, March 26, 27, 28. A study of the catalogue which we are mailing to all interested enough to ask for one, will show you that there is nothing better in Hereford blood lines than the pedigrees contained in this little book. In the introductory to the catalogue we have tried to make a plain statement of facts.

"A glance at the names of the breeders making this sale should be sufficient guarantee as to the quality of the offering. Therefore we feel it unnecessary to enter into any detailed description of the merits of any of the very many superior animals to be sold. We do not claim all the bulls to be herd-

headers, nor all the cows and heifers to be show material, but there will be plenty of both to supply the demand, and then some."

"This is not a combination sale in the usual acceptance of the term, but a sale in which the most reputable Hereford cattle-breeders have associated themselves for the purpose of holding these sales in March each year to sell the natural increase of their herds. We could not hope to make this annual sale popular and merit your confidence by offering you culs. We expect to offer you each year, whether cattle are high or low, fair representatives of our herds, and we think there are none better."

To Plant Pure-Bred Seed Corn.

At a cost of about 20 cents per acre with such leading varieties as Boone County White, Imperial, St. Charles, Legal Tender, and Banner Yellow Dent would be the best investment a farmer could make. For prices and particulars write W. D. Kuhn, Holton, Kans., the largest seed corn distributor in the State.

Used Successfully for Twenty-Five Years on Sweeney, Windgalls, Etc.

I have used Gombault's Caustic Balsam for sweeney, windgalls, and caloused scars resulting from wire cuts and collar sores, with very best results. I have used it for the past twenty-five years and it always gave entire satisfaction.—JESS W. HARPER, Glenullin, N. Dak.

Modern Silage Methods.

The best investment known for 10 cents is the offer of the Silver Manufacturing Company, Salem, Ohio, as shown on page 298 in the March 5 issue. Every progressive farm should be well posted on silage methods, silos, and the best authority is our reliable customer herein named.

The Lawrence Business College.

The Lawrence Business College, located at Lawrence, Kans., may be justly proud of the progress that it has made since its inception. It is one of the oldest institutions of its kind in this section of the country and many are the boys and girls that have gone out from this place to good positions in the commercial world.

This college is now passing through one of the most prosperous years of its history. They have a large enrollment and the students are doing excellent work.

The college authorities receive each year numerous applications from large and influential business concerns for competent office help and in many instances these applications exceed the number of thoroughly prepared people to fill them, and this is a most forceful argument in favor of a thorough preparation along these lines.

The cost of an education is not so great but that the young man of "grit" can obtain it and if you are inclined in this direction send to this college for one of their large illustrated catalogues and investigate their proposition.

Ziller, the Seed Corn Grower.

Mr. John D. Ziller, Route 6, Hiawatha, Kans., is the owner of Lawndale Seed and Stock Farm. Mr. Ziller has made a reputation as one of the earliest corn breeders in Kansas. The writer does not remember the exact number of years but feels sure that he has known of Ziller's pure-bred corn for about twenty years, and during all this time the owner of Lawndale has studied and worked to improve the quality. That he has done this is shown by many premiums he has won at various corn shows, fairs, and exhibitions. At the Louisiana Purchase Exposition, Mr. Ziller won the silver medal and has been winning prizes right and left wherever he has shown.

Hiawatha Yellow Dent is a Ziller corn and it is a Kansas corn. To people who like yellow corn it can be recommended as just suited to Kansas



Kills Prairie Dogs and Gophers of all kinds. Endorsed by State Experimental Stations. 1,400 tablets prepared for \$1.35. Warrented. Ratidole Tablets 20 cents. Ask druggist or send direct. Booklet free.

F. D. Chemical Co., Fort Dodge, Ia.

STOP! THINK!!



Are you not interested in the "Old Hen" and her little ones? If so, had you not better supply her with a safe, comfortable and sanitary home; one in which she with her little chicks will not be molested by any kind of vermin, rain or any of the pests that usually mean death to the little ones? This coop and run-way made of the best grade of galvanized iron and wire, will supply her with just such a home; well ventilated, easily cleaned. Can also furnish you with Fountains, Feeders, etc. Write for catalogue and prices. AGENTS WANTED.

THE RAY HEATER MFG. CO., Lawrence, Kas.

THE MEN WHO KNOW

THE SUPERIOR QUALITIES OF



SLICKERS, SUITS AND HATS

are the men who have put them to the hardest tests in the roughest weather.

Get the original Tower's Fish Brand made since 1836

CATALOG FREE FOR THE ASKING
A. J. TOWER CO. BOSTON, U.S.A.
TOWER CANADIAN CO. LIMITED, TORONTO, CAN.

"GO" \$375.00 to \$450.00

2 to 25 miles per hour—30 miles on 1 gallon gasoline.

AS FAR AS YOU LIKE

—Up hill or through mud. —At prices right to suit you for a

BLACK MOTOR RUNABOUT

Guaranteed every way—Safe—Dependable—Handsome finish—Most durable materials and workmanship. Engine 10 H. P., 2 cylinders, air cooled—Chain drive rear—Double brake. All top motor Buggies and Surreys. Free Book No. A152 shows all—write.

BLACK MFG. CO., 124 East Ohio Street, Chicago, Ill.

SHIP YOUR FURS

TO McMillan Fur & Wool Co.

EXPORTERS AND IMPORTERS
200-212 First Avenue North
MINNEAPOLIS, MINN.

OR
119-121 North Main Street
ST. LOUIS, MO.

WRITE EITHER HOUSE FOR CIRCULARS

AUTOMOBILE FOR SALE

A five-passenger, side-entrance, 20 H. P. Touring Car, 1907 Model, slightly used but in good condition. This car is made by one of the best concerns in the country and bears the manufacturers' guarantee. Speed 45 miles per hour and a good hill climber. Address,

E. V. McMILLAN, Box 87, Detroit, Mich.

HORSE OWNERS! USE**CAUSTIC BALSAM.**

A safe, speedy and positive cure. The safest, best ELIXIR ever used. Removes all bunions from horses. Impossible to produce scar or blemish. Send for circular. Special advice free. THE LAWRENCE-WILLIAMS CO., Cleveland, Ohio.

SCOURS

Cured in pigs, calves, colts and sheep by feeding ANTI-SCOUR. Send for circular. The Agricultural Remedy Co., Topeka, Kansas.

Vincent's Kansas Kolera Kure

will cure all hog cholera. Write for free booklet.

McCurdy Bldg.

Hutchinson, Kansas

\$10.00 Sweep Feed Grinder | **\$14.00 Galvanized Steel Wind Mill.**

We manufacture all sizes and styles. It will pay you to investigate. Write for catalog and price list.

CURRIE WIND MILL CO.,
Seventh St., Topeka, Kansas

BEE SUPPLIES

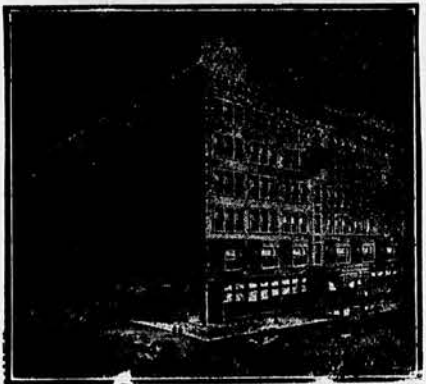
We can furnish you bee and all kinds of bee-keepers' supplies cheaper than you can get elsewhere, and save you freight. Send for our catalogue with discount sheet for early orders.

TOPEKA SUPPLY HOUSE,
7th and Quincy, Topeka, Kans.

HOTEL KUPPER

11th and McGee St.

Kansas City, Missouri



One of the newest and most centrally located hotel in the city. Absolutely modern in every detail. European plan, \$1.00 per day and up.

**KRESO-DIP****FOR SPRING DIPPING**

AND Hand Dressing All Stock.

PUTS AN END TO LICE, TICKS, MITES, FLEAS, MANGE, SCAB, RINGWORM, ALL SKIN DISEASES.

Don't waste time and money on inferior dips.

KRESODIP

NON-CARBOLIC. STANDARDIZED.

Prepared in our own laboratories. Ask your druggist for Kreso Dip. Write us for free booklets telling how to use on all live stock.

PARKE, DAVIS & CO.
DETROIT, MICHIGAN.

BRANCHES: New York, Chicago, St. Louis, Boston, Baltimore, New Orleans, Kansas City, Indianapolis, Minneapolis, Memphis, London, Eng.; Montreal, Que.; Sydney, N.S.W.; St. Petersburg, Russia; Bombay, India; Tokio, Japan; Buenos Aires, Argentina.



conditions. This is the corn on which Mr. Ziller won the first prize at the National Corn Show in Chicago last fall. He also won the silver medal and diploma at the World's Fair, St. Louis; the first premium on ten ears at the Kansas State Show which sold at the rate of \$140 a bushel, and also first premium on shelling test and first premium on the heaviest yield per acre. First premium for two years at St. Joseph, first premium for one year at St. Louis, first premium for two years at Topeka, first premium for two years at Kansas City, first premium for one year at Peoria, first premium and sweepstakes for eight successive years at the farmers' institute and corn show. These are only a few of the winnings made on this corn. Mr. Ziller also breeds Reid's Yellow Dent, Farmers' Interest White, and Boone County White, in the corn varieties, besides the Texas Rust Proof Oats, Mammoth White rye, Kharkof wheat, and general field seeds.

Mr. Ziller has just issued a beautifully printed catalogue which you may have if you ask for it and which contains announcements about his purebred Barred Plymouth Rocks, his registered Poland-Chinas, and his Scotch Collies.

A Beautiful Cream Separator Catalogue Free.

We suggest that every subscriber interested in a cream separator send for the beautiful catalogue of the Galloway Cream Separator.

We show here the front cover illustration of the William Galloway Company's 1908 Cream Separator Catalogue.



Their booklet which has just come to our desk is complete in its description of the Galloway Separator and also contains a lot of interesting information on profitable dairying. It has 36 pages besides the cover. It is full of illustrations completely describing their separator and going into the matter of dairying in a most convincing way. There is no farmer who is thinking of buying a cream separator that should be without this catalogue.

The William Galloway Company, of Waterloo, Iowa, are selling a practical, modern, up-to-date separator containing the latest improvements in the line of cream separator construction, direct from factory to farm. This company is to-day one of the best known mail order manufacturing firms in the country. It sells all its goods direct from factory to farm on a 30-days free trial plan with a regular \$25,000 legal bond guarantee. They are thoroughly reliable in every way and the class of goods they are selling are the best. The famous Galloway Wagon Box Manure Spreader which has made such a stir among farmers and proven a remarkable success is also manufactured and sold by this same firm on the same plan on which they sell their cream separators.

Their cream separator is advertised in this issue of THE KANSAS FARMER on page Read their advertisement as they call your attention to a proposition they are making that should interest any farmer who is in the market for a cream separator. We understand they send their proposition to you when you make inquiry for their Cream Separator Catalogue.

Don't fail to get their 1908 catalogue showing the New Improved Galloway Cream Separator and remember the Galloway is the only way of selling farm machinery from factory to farm.

A Very Superior Incubator.

The attention of our readers is called to the advertisement in this issue of the X-Ray Incubator Company, of Blair, Neb.

Twelve superior points are claimed for the X-Ray Incubator and all are especially worthy of attention. But one filling of the lamp makes an entire hatch; all eggs and thermometer in plain sight; the egg tray is not removed to turn and air the eggs; the wick trimmer is automatic and the manufacturers have perfected an absolutely direct regulation of the lamp blaze. Nine years of unceasing work and study on the part of the inventor has brought all these features to their present perfection. It is a machine built by experience and not by theory. Farmers and chicken-raisers who are interested in an up-to-the-minute incubator with every late improvement, should write for the large 1908 catalogue issued by the X-Ray Incubator Company, L Street, Blair, Neb. Aside from the many important subjects covered, this book thoroughly discusses the one of artificial incubation.

Grain in Kansas City.

Kansas City, Mo., March 9, 1908. Receipts of wheat in Kansas City today were 161 cars; Saturday's inspections were 110 cars; shipments, 51 cars; a year ago, 98 cars. Prices were generally unchanged and sales were made slowly. About 50 cars were carried over unsold. The sales were: Hard Wheat, No. 2, 4 cars 97 1/2c, 1 car 97c, 2 cars 96 1/2c, 3 cars 96c, 7 cars 95 1/2c; No. 3, 1 car 97c, 13 cars 96c, 2 cars 95 1/2c, 13 cars 95c, 2 cars 94 1/2c; No. 4, 1 car 96c, 1 car 95 1/2c, 5 cars 95c, 2 cars 94 1/2c, 6 cars 94c, 2 cars 93 1/2c, 1 car 92c, 3 cars 90c. Soft Wheat—No. 2 red, 2 cars \$1,

END YOUR ROOF TROUBLES WITH**Amatite ROOFING**

A Roof that Really Protects



The more carefully you study the subject of Ready Roofings the more you will be convinced of the great superiority of AMATITE.

The average buyer sends to a few advertisers for samples, picks out one that looks tough, and sends in his order to the nearest dealer.

If the dealer doesn't keep the kind selected some other kind which he has is generally bought instead.

That is a good way to get a leaky roof.

The careful buyer is more particular. He knows that any roofing will last for a little while without attention, but he wants to postpone the time and cost of renewal as long as possible.

He is figuring next year's cost as well as this year's cost. He thinks of the money he will have to spend after a few years for a new roof if this one won't last any longer. If he can get a better roofing at equal cost that will last longer, he is so much the gainer.

That kind of calculation is called thrift. The thrifty buyer sees important differences between AMATITE and the other roofings.

The other roofings either require a coating with a special liquid every year or two, or periodical painting. Right there is a future expense to be counted by the thrifty buyer.

His judgment swings toward AMATITE, because it needs no painting either at the time it is laid or afterward. Once it is on you have no further bother or expense.

Then again, AMATITE has wonderful durability:—

First, because it has a mineral surface. Doesn't it seem reasonable to believe that a top covering of crushed stone will resist the wear of storms better than a roofing with a smooth or unprotected surface?

Second, it contains solid layers of Coal Tar Pitch—the material which is used by the best engineers for waterproofing deep cellars, tunnels, etc. Doesn't it seem reasonable to suppose that this offers better protection against water than materials which are never used for such severe service?

One more argument. Weight for weight, AMATITE is the lowest in price of any mineral surfaced Ready Roofing.

These, then, are some of the reasons why thrifty people buy AMATITE—It costs nothing to maintain; it has remarkable durability, and its first cost is very low.

Sample Free.

There are more arguments for AMATITE than these. Our Booklet tells them. Sent with Free Sample for a postal to nearest office.

BARRETT MANUFACTURING COMPANY



New York Chicago Philadelphia St. Louis Cleveland Allegheny
Cincinnati Kansas City Minneapolis New Orleans Boston London, Eng.

JERSEYS**Linscott's Jerseys**

Established 1878. Registered in A. J. C. O. My herd has outgrown the carrying capacity of my farm and to reduce it in numbers, offer for sale any animal, with a very few exceptions, in the herd for from \$25 to \$125. Remember this is from the largest and oldest herd of registered Jerseys in Kansas. Young stuff both sexes for sale at all times. Correspondence and inspection invited.

R. J. LINSOTT, Holton, Kans.

HOLSTEIN-FRIESIANS**Somerheim Farm Breeds**

HOLSTEIN-FRIESIAN CATTLE,
POLAND-CHINA SWINE.

Stock for sale at all times.

Jas. B. ZINN, Box 348, Topeka, Kans.

THE LILAC FARM.

We have a fine lot of bull calves sired by Lilac Preterje Sir De Kol, 1st prize bull Topeka State Fair, 1905, which we are offering for sale at a very reasonable price. The Lilac Farm, Hughes & Jones, Proprietors, R. 2, Topeka, Kans.

HOLSTEIN BULL CALVES

from large producing dams. You can increase your profits 50 per cent with this class of stock. Address

H. B. COWLES,
625 Kansas Ave., Topeka, Kans.

Live stock advertising in The Kansas Farmer brings results to the advertiser.

AUCTIONEERS**R. L. HARRIMAN**

Live Stock Auctioneer
BUNCHEON, MISSOURI

JAS. W. SPARKS

Live Stock Auctioneer
MARSHALL, MISSOURI
Twenty years selling all breeds.

E. E. POTTER, Sterling, Kansas, Live Stock Auctioneer.

Pure-bred stock sales a specialty. Best of references. Write, wire or phone for terms and dates at my expense.

Jas. T. McCulloch, Live - Stock - Auctioneer

Clay Center, Kansas.
I am making a study of your herd and best interests from a public sale standpoint. I am conducting sales for many of the best breeders in Northern Kansas and want to make your next sale. Selling pure-bred live stock at auction is my business.

The Blossom House

Kansas City, Mo.
Opposite Union Depot. Everything first-class. Cafe in connection. Cars for the Stock Yards, the up town business and residence parts of the city and for Kansas City, Kans., down the river. Solid comfort at moderate prices. A trial will please you.

I WILL SEND FREE

My Book and Instructions for Curing

Catarrh Deafness Failing Eye Sight, Sore or Weak Eyes AT HOME



I want to place a copy of my new book, entitled "Perfect Sight and Hearing," in every home in the United States, absolutely free of charge.

This book tells you the cause of Catarrh, Deafness, Failing Sight and all eye, ear, nose and throat diseases. It tells you how to prevent these diseases and how all mild forms of these diseases can be cured at home.

This book gives the origin and history of the Absorption Treatment and the curing of eye and ear diseases at home. The information in this book is valuable to every person who suffers with weak eyes or ears.

In addition to sending you this book free

I WILL SEND YOU ONE MONTH'S TREATMENT On Trial

This offer is fair and square. If you suffer from Deafness in any form, Catarrh of the nose, throat, head or constitution, sore eyes, Granulated Lids, Wild Hairs, Ulcers, Scums, Weak eyes, Failing sight from any cause; write and tell me what disease you have, I will give you the opportunity of testing the Absorption Treatment with the understanding that it will cost you nothing if it does not prove satisfactory.

There are absolutely no conditions to this offer. The Absorption Treatment does cure mild forms of eye, ear, nose and throat diseases, and I want to prove it. I want everybody to try it. I want them to see whether it is the treatment for their case or not. If it fails to convince them that it is the right treatment it will cost absolutely nothing.

A 100,000 people have used this treatment in their homes. Some had been partially deaf or partially blind, or suffered with Catarrh or failing sight for ten, twenty and thirty years, and restored their sight and hearing perfectly in one or two months. My book tells all about these cases and the kind of cases that can be cured.

Hundreds of cures like these, prove the merit of the Absorption Treatment, and it is for this reason, that I am going to give every person afflicted an opportunity to try it in their own homes, and if it fails to satisfy them, it costs them nothing.

Special Notice

If you are not afflicted yourself and have no need for this offer you may have friends or neighbors who are afflicted with Catarrh, Deafness, Headnoises, Failing Eyesight, Sore Eyes or any other Eye, Ear, Nose or Throat Disease. You will do them a great kindness and a favor to me by showing them this great free offer.

Tell them to write to me I will gladly send them my Free Book and tell them how to get a month's treatment for their case on trial.

DR. W. O. COFFEE, Dept. 872

Care of The National Eye and Ear Infirmary,
DES MOINES, IOWA.

DEAR DOCTOR:—I am afflicted with.....
and would like to have you send me free of charge, your 128 page book and advise me how to get a month's treatment for my disease on trial.

Name.....

Address.....

.....

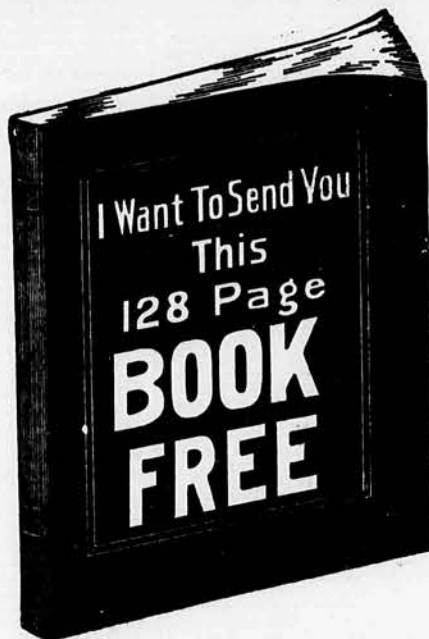
My Free Offer:

is open for acceptance to every person afflicted. My big book explains the remarkably simple method of curing these diseases. No matter who has treated you or how long you have suffered; no matter how long you have been deaf or suffered with Catarrh, or Weak eyes or any disease or weakness of the eyes, ear, nose and throat, or who has told you that you are incurable, I want to send you free, a copy of my book, and I want you to try the Absorption Treatment. It has cured hundreds of people who have been considered incurable, and I believe that it will cure all ordinary cases of eye and ear diseases, where the structures have not been injured or destroyed.

I will send a month's treatment on trial; it costs you nothing if it does not prove satisfactory for your case.

If you want to get well of your disease, if you want to learn how to keep perfect sight and hearing, write me today; tell me what disease you are suffering with, let me send you this book free, and a month's treatment on trial. Read the history of these cases below and if your case is no worse than theirs, you should get well quickly with this treatment.

Fill out the coupon and send me today, without delay. You may not have an opportunity of getting this great free offer again.



These People Accepted My Offer--Read What They Say About My Treatment.

These People Were Partially Deaf Twenty-five to Forty Years and Now Hear Perfectly.

Mr. Isaac Scott, of Chrisman, Ill., writes: "I suffered for forty years from Catarrh and Partial Deafness; restored my hearing in one month."

David Williams, of Newcastle, Pa., suffered with ear disease and partial deafness for twenty-five years; restored his hearing perfectly in one month.

Mrs. P. L. Dawson, of Barnesville, Ohio, suffered with partial deafness and ear trouble for twenty-five years and restored her hearing perfectly.

These People were Partially Deaf for Fifteen and Twenty Years and Can Now Hear Perfectly.

J. B. Whitesides, of Monett, Mo., writes: "I suffered for twenty years with partial deafness; restored my hearing in two months perfectly."

Mrs. Nancy Pierce, of Russell, Iowa, writes: "I suffered with partial deafness for eighteen years and you restored my hearing perfectly."

Mrs. Louis Charoos, of Woodward, Okla., says: "I suffered for fifteen years with ear trouble and partial deafness. Restored my hearing perfectly in a short while."

These People Were Partially Blind From Granulated Lids, Wild Hairs, Inflammations, Scums, Etc.

Miss Lizzie Goldsby, of Woodberry, Ill., partially blind twenty-six years, from Granulated Lids, Scums and Growths. Restored her sight perfectly.

Mrs. R. F. Hill, of Yuma, Tenn., suffered for thirty years with tumors on the eye lids and weak eyes. Several operations had been performed with no permanent benefit. Restored her sight perfectly in two months.

W. L. Mulkey, of Demorest, Ga., suffered with inflammation and sore eyes twenty-five years. Restored his sight perfectly.

Willis E. Calvin, of Greeley, Colo., almost blind from Inflammations and Scums. Sight restored perfectly.

John J. Baugh, of Dimmock, W. Va., had growths on the eyes—had been operated on—they returned—used my treatment, has perfect sight.

Marion Blake, of Canadian, Ind. T., had inflammation of the eyes for four years. Doctors could not help it. Restored sight in one month.

Mrs. Ed. Pecue, of West Pawlet, Vt., could not read without glasses for twenty years. Restored her sight and threw away her glasses in one month, time by following my instructions.

**DR. W. O. COFFEE, Care National Eye and Ear Infirmary
Dept. 872, DES MOINES, IOWA.**

nominal \$1.01; No. 3 red, 2 cars 98c, nominal 98c; No. 4 red, 1 car 96c, nominal 96c; Spring Wheat—No. 2 white, 1 car 94½c, 2 cars 94c. Mixed Wheat—No. 2, 2 cars 96½c. Durum Wheat—No. 2, 1 car 87c.

Receipts of corn were 19 cars; Saturday's inspections were 28 cars. Shipments, 52 cars; a year ago, 38 cars. Prices were ¼¢ higher. The sales were: No. 2 white, 3 cars 59c, 1 car 58½c, 4 cars 58c; No. 3 white, nominal 58½c; No. 2 mixed, 1 car 58½c, 5 cars 58½c, 2 cars 58c; No. 3 mixed, 1 car 58½c; No. 2 yellow, 1 car 59½c.

Receipts of oats were 16 cars; Saturday's inspections were 18 cars. Shipments, 6 cars; a year ago, 23 cars. Prices were unchanged. The sales were: No. 2 white, 1 car 51c, 1 car 50½c, 3 cars 50c; No. 3 white, 1 car 51c, 2 cars 50c, 3 cars 49½c, 2 cars 49½c; No. 4 white, 1 car color 48c; No. 2 mixed, nominal 49½c; No. 3 mixed, 1 car red 49½c, 1 car red 49½c, 1 car red, 49c, 2 cars 48½c, 2 cars 48c.

Barley was quoted at 65¢/75c; rye, 74¢/78c; flaxseed, \$1.03@1.05; Kafir-corn, 95¢/98c per cwt.; bran, \$1.11@1.12 per cwt.; shorts, \$1.10@1.13 per cwt.; corn chop, \$1.10@1.12 per cwt.; millet seed, \$1.50@1.60 per cwt.; clover seed, \$1.16 per cwt.

The range of prices for grain in Kansas City for future delivery and the close to-day, together with the close Saturday, were as follows:

	Open.	High.	Low.	Closed to-day.	Closed Sat.
WHEAT.					
May	92½-¾	93½-¾	91½	92½-¾	92½
July	58½	57½	56½	57½-¾	56½
Sept.	82	82½	81½	81½	82½-¾
CORN.					
May	87½-¾	88½	87½	88½-¾	87½-¾
July	58½	57½	56½	57½-¾	56½
Sept.	56	56½-¾	56	56½	55½

Kansas City Live-Stock Market.

Kansas City, Mo., March 9, 1908. The good start made by the cattle market first of last week was followed by strong markets all week, and the close was 15¢ to 25¢ higher on all kinds of killing cattle with the exception of calves, which declined 25¢ to 50¢. Stockers and feeders moved slowly after Tuesday, and the market on them closed with a small loss for the week, while the number held over at the end of the week increased 1,200 head as compared with the close of the previous week. Cattle supply to-day is 8,000 head here, and light at other points, market 10¢ to 15¢ higher on steers, strong to 15¢ higher on she stuff, and the usual Monday strength is shown by stockers and feeders. The best steers sold at \$5.75 last week, reaching that figure on four different days, top to-day at noon \$5.65, with some better steers still in the pens. Bulk of the steers bring \$5.60, a third consignment of the Lockhart steers to-day, sixteen cars, going at \$5.60, as compared with \$5.45 last Monday and \$5.25 two weeks ago. Cows bring \$3.25@4.75, a few fancy ones \$5.50, heifers \$3.75@5, tops at \$5.30, bulls \$3.25@4.50, veals \$5@6.25, stockers \$3.50@4.75, feeders \$4.35@5. The general market is better than ten days ago, and under normal commercial conditions sharp advances might be expected, but from the present outlook traders view the situation with more or less conservatism.

Hogs made a gain of 10¢ per cwt. last week, after constant fluctuations, closing the week with a rousing market on Saturday. The strong finish failed to attract any great run to-day, only 8,000 head here, which is taken to indicate that no heavy reserves remain in the hands of feeders. The market opened 5¢ higher to-day, but closed a shade easier, top \$4.70, bulk of sales \$4.50@4.65, pigs worth \$3.80@4.10. Weights from 180 to 240 pounds have gone further toward the front in the last week, account of the strong demands on packers for fresh pork.

Sheep and yearlings made good gains last week, especially ewes, which are 50¢ to 60¢ above two weeks ago. Lambs also gained 15¢ to 25¢ during the week, small receipts being the dominating feature. The supply to-day is again moderate, 5,500 head, market 10¢ higher, lambs at \$6.80@7, fair to good ewes \$5.35, yearlings \$6.30, wethers \$5.50. This was not the full test on either ewes, wethers or yearlings, as these classes reached \$5.60, \$5.75, and \$6.30, respectively, late last week.

J. A. RICKART.

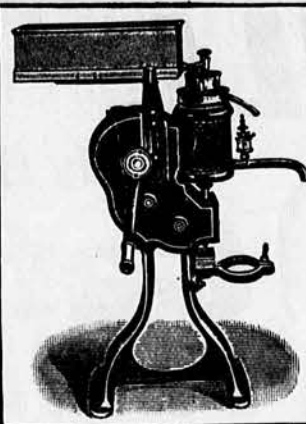
PURE-BRED STOCK SALES.

- Shorthorns.**
March 17—T. K. Tomson & Sons, Dover, Kans., at Kansas City, Mo.
April 13—Howard M. Hill and others, Fredonia, Kans.
- Herefords.**
March 26, 27, 28—Fine Stock Pavilion, Kansas City, Mo. R. T. Thornton, Manager.
- Poland-Chinas.**
March 6—Hales & Hughes, Severy, Kans.
Mar. 19—W. C. Tomlinson, Kansas City.
February 4, 1909—F. G. Niles & Son, Goddard, Kas.
- Duroc-Jerseys.**
March 10—John W. Jones & Son Concordia, Kan at Emporia.
March 13—Sam'l Drybread, Elk City, Kans.
March 14—T. J. Woodall, Fall River, Kans.
March 17—John W. Jones & Son Concordia, Kans.
October 2—R. B. Adams & Son Thayer, Kans.
February 27—R. B. Adams & Son, Thayer, Kans.
- Percherons.**
March 12—R. J. Ream & Co., Denver, Col.
- Combination Sales.**
March 19—O. P. Henderson, Hebron, Neb., Percheron brood mares, Kentucky Jacks and Short-horn cattle.
Apr. 24—Kansas City, Mo., D. R. Mills, Mgr.

Stray List

- Week Ending February 27.**
Marion County—H. E. Woolheater, Clerk.
STEER—Taken up by Gust Hedberg, in Clear Creek tp., February 26, 1908, one 3-year-old red steer, white face, X on left hip; valued at \$40.
- For Week Ending March 12.**
Franklin County—J. L. Turner, Clerk.
HEIFER—Taken up by D. E. Higdon, in Cutler tp., one yearling red heifer, with stubby horns, and white switch on tail.

FOR 16 YEARS THE BEST! STILL BETTER IN 1908 UNITED STATES Cream Separators.



The United States has always, since its introduction, separated more cream from the milk, and has done it more thoroughly and quickly than any other separator. The figures of the public national and international tests demonstrate this.

THE 1908 MODELS HAVE IMPROVEMENTS

which make the handling of milk still easier, quicker and more profitable. They do their work more efficiently, more economically than any other, and are built to wear. In spite of the fact that the demand is greater than ever before, and that dairymen everywhere are exchanging other makes for the reliable and efficient United States, the standard separator, we are prepared to make prompt deliveries anywhere.

Write to-day for "Catalogue No. 91 and any desired particulars VERMONT FARM MACHINE CO., Bellows Falls, Vt. Distributing warehouses at: Chicago, Ill., La Crosse, Wis., Minneapolis, Minn., Kansas City, Mo., Omaha, Neb., Toledo, O., Salt Lake City, Utah, Denver, Colo., San Francisco, Cal., Spokane, Wash., Portland, Ore., Buffalo, N. Y., Auburn, Me., Montreal and Sherbrooke, Quebec, Winnipeg, Man., Hamilton, Ont., Calgary, Alta.

Special Want Column

"Wanted," "For Sale," "For Exchange," and small want or special advertisement 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. No order accepted for less than \$1.00.

CATTLE

FOR SALE—Two richly bred Shorthorn bulls, registered and of serviceable age. Call on or address C. W. Merriam, Topeka, Kans.

FOR SALE—Four Shorthorn bulls from 1 to 2 years old. Good individuals and best of breeding. Call on or address Stewart & Downs, Hutchinson, Kans.

HEREFORDS FOR SALE—Sixteen strong, dark red yearling bulls will be sold very cheap. H. B. Clark, Geeseo, Kans.

WANTED—A thoroughbred Red Polled bull about one year old. Must be at bargain price and from about same latitude as Eastern Oklahoma. Give price f. o. b. Claremore, Okla. L. Box 22, A. F. Parsley, Claremore, Okla.

ABERDEEN ANGUS—Yearling bulls, extra good. Sired by Blon Erica 7802, for sale at reasonable prices. T. R. Culver, Garnett, Kans.

FOR SALE—Registered Holstein-Friesian bull 15 months old. G. C. Edmonds, Leocompton, Kans. Bell Phone 112A.

FOR SALE—3 red Shorthorn bulls, ages 11 and 18 months; also 15 Shorthorn heifers, 1 and 2 years old. All eligible for record. J. J. Thorne, Kinsley, Kan.

FOR RED POLLED BULLS full of World's Fair blood address D. F. VanBuskirk, Blumound, Kas.

FOR SALE—Four registered Shorthorn bulls, 1 and 2 years. Address E. D. Haney, Courtland, Kans.

REGISTERED Holstein-Friesian bull for sale; 3 years old. J. E. Huey, R. 6, Sta. A, Topeka, Kans.

FOR SALE—28 head of registered Aberdeen-Angus cattle. These are the good kind, and are mostly cows and heifers. I am changing my business and these cattle will be sold at bargain prices. Call on or write Frank Wasson, Clearwater, Kans.

FOR Red Polled bulls or heifers, write to Otto Young, Utica, Ness County, Kansas.

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FOR SALE—A few choice Scotch heifers by the pure Scotch bull Cruickshank Clipper and out of our best cows. Also a number of splendid gilts of the good growthy kind, bred for March and April farrow. Prices reasonable. Farm adjoins depot. Call or write. Geo. B. Ross & Sons, Alden, Kans.

Scotch Topped Bull.

For Sale or Trade—My 4-year-old herd bull, Maud's Duke of Wildwood 21823; has scale and quality, is a good individual and a sure breeder. Also choice Duroc spring gilts for sale.

T. J. DAVIS, Nickerson, Kans.

SELDEN STOCK FARM

Scotch and Scotch topped Shorthorns for sale. 8 young bulls from 8 to 24 months old, all reds and good quality. Sired by Baronet of Maine Valley 178876 and Secret Emporer 232847. Prices reasonable. Inspection invited.

HOADLEY & SIGMUND, Selden, Kans.

WESTLAWN SHORTHORNS

A few extra choice bulls, 6 to 18 months old, by my straight Scotch bull, Lankland of Orange and out of heavy milking dams. Prices reasonable.

E. B. GRANT, R. 9, Emporia, Kans.

Providence Farm Shorthorns

Blythe Conqueror 224431, full Scotch show bull at head of herd, sire and dam both imported. Scotch and Scotch topped individuals, both sex's for sale. To make room will give special prices for next 30 days. A few choice young bulls, cows with calves at foot and cows and heifers bred and young heifers not bred. Foundation stuff a specialty.

J. L. STRATTON & SON,
1 mile Southwest Ottawa, Franklin Co., Kas

Shorthorns and Poland-Chinas

For Sale—7 bulls from 8 to 18 months old (6 of these are straight Scotch), a few pure Scotch and Scotch-topped heifers from 8 months to 2 years old. These are by our pure Scotch bull, Cruickshank Clipper, and out of our best cows. Also some topy spring boars, and a few choice gilts bred for spring farrow. Prices reasonable. Farm adjoins depot. Call or write.

GEO. B. ROSS & SONS, Alden, Kans.

Prospect Farm Shorthorns

The oldest Shorthorn breeders in Kansas. The largest herd of Cruickshanks in Kansas. Herd headed by Violet Prince 145647 and Orange Commander 220590. Young stock of both sexes and some cows for sale. Quality and prices right.

H. W. McAFEE,
Bell Phone 59-2. Topeka, Kans.

GALLOWAYS**Smoky Hill Galloways.**

Choice young stock of both sexes for sale. Large herd to select from. Acclimated to buffalo grass country, equally good for Eastern breeders.

Smoky Hill Ranch, Wallace, Kans.

CAPITAL VIEW GALLOWAYS

Over 200 head. Extra lot of young bulls by Imp. Baillie of Lockside 23524, Lost Boy of Platte 12633, and Tip Top 22260.

G. E. CLARK,
2301 Van Buren St., Topeka, Kans.

HEREFORDS**Maplewood Herefords**

The great 2,400 pound Dale Duplicate 2d, Chief herd bull, son of the great Columbus. High-class stock for sale.

A. JOHNSON, Clearwater, Kans.

STAR BREEDING FARM**Herefords and Durocs.**

Judge Spencer 97224, a prize-winner at the American Royal in 1906, heads Hereford herd. Hanley Lad 4223 by Hanley 42345, heads Durocs. For sale, choice stock of both breeds, any age or either sex, at rock bottom prices.

SAM'L DRYBREAD, Elk City, Kans.

**HIGH-CLASS MODERN
HEREFORDS.**

The great Protocol 2d 91715, Printer 66384, Beau Beauty 192235 and Beau Brummel 19th 167719, head of herd. Choice young stock of both sexes for sale.

Hazford Place,
Robt. H. Hazlett, Eldorado, Kans.

HORSES AND MULES**OAKLAWN FARM**

400 HEAD

We offer largest and
choicest collection
Most reasonable
prices
Safest guarantee

THE BEST**Percherons, Belgians
French Coachers**

Horses delivered to any part of
United States or Canada free of charge.

Three large importations since July 1st,
including tops of twenty leading breeding
establishments of France. Visit us.

DUNHAM & FLETCHER
WAYNE, DU PAGE COUNTY, ILLINOIS

A 30 Day Continuous Sale at the Cedar
Rapids Jack Farm.

I will for the next 30 days sell both imported stallions and jacks, the finest line in the United States, at a cut of from 20 to 30 per cent from regular prices, for cash. The financial conditions have caught me needing money, and the only way to get it is to sell I have the finest line of Belgian and Percheron stallions that you can find anywhere, which I imported last season, and I will show you better ones than you have ever seen. Your price is mine. I am determined to sell. All parties who want bargains in stallions and jacks, don't fall to come and see me in the next 30 days. W. L. DeClerk, Cedar Rapids, Ia.

Big Mammoth Jacks

This is the place, where they are registered or can be. Will sell you jacks 15 to 18½ hands high standard, from \$500 to \$700, and they have plenty of bone and quality. All young and guaranteed. Also have trotting bred coach stallions for sale. Address

J. L. BAUGHMAN & CO.,
Nickerson, - - - Kansas

JACKS. STALLIONS

25 Imported and Kentucky Mammoth Jacks, 6 saddle and harness Stallions. We have opened a branch barn at Wichita, Kans., and are located at the fairgrounds. They have bone and weight enough to please anyone.

J. F. COOK & CO., Lexington, Ky.
Branch barn: Wichita, Kans.,
J. C. Kerr, Mgr.

Percheron Horses

Stock for sale. Come and
see us or write your wants.

F. H. Schrepel, Ellinwood, Kas.

Jacks, Jennets, Stallions

30 black Jacks of good ages, heavy boned and up to 16 hands high; 38 jennets; stock nearly all of my own raising and acclimated. Also several draft stallions and one saddle stallion for sale. Prices reasonable.

PHILLIP WALKER, Moline, Elk Co., Kans.

PIKE COUNTY JACK FARM.

Largest Importer and breeder of
Mammoth Jacks in the United
States. Every stall in my barn
has a big Mammoth Jack, 15 to
17 hands high, 1,000 to 1,300 lbs.,
that I will sell on one and two
years time to responsible parties.
If my Jacks are not just as I
represent them I will pay all rail-
road expenses.

LUKE M. EMERSON, Bowling Green, Mo.

THE BROWN FARM

Horses—Cattle—Swine—Poultry.
Silkwood 12326, in stud, race record 2:07;
Guideless, record 2:07½; sire of two in 2:10
and of eleven with records better than 2:35.
Fee, \$25 to insure. Pasture and feed reason-
able. Registered Shorthorns and Jerseys.
Large strains. Several Jersey bulls for sale.
O. L. C. Swine. Choice boars and gilts for
sale. R. L. Red. Chickens, both rose and single
comb. Eggs \$1 per 14, 45¢ per 100. Cor-
respondence, inspection and patronage so-
lited.

T. O. BROWN, Prop., Reading, Kans.

**EDUCATION IS ESSENTIAL IN
EVERY LINE.**

I have the natural qualifications for an auc-
tioneer and have had the benefit of a term of
training in the American Auction School lo-
cated at Chillicothe, Mo., which school pro-
vides a thorough course not only in practical
auctioneering but also stock judging and other
things that very successful auctioneers
should know. My terms are reasonable for
good service.

W. C. CURPHEY, Abilene, Kans.

POLLED DURHAMS**Polled Durhams
FOR SALE**

Double Standard Polled Durhams. Choice
young bulls sired by Kansas Boy X 2535,
brother to first prize winners last two years.
Write or come and see stock.

D. C. VanNise, Richland Kans.

HORSES AND MULES**HORSES AND MULES****FRANK IAMS**

"Fences and Cream" stallions and mares are best investments for depositors, you have in "banks" and can't draw out. Waita me around again Willie, then buy a stallion and two mares of Iams. They will make us 40 per cent and we will know where our money is. Iams will accept our certificate of deposit drafts, certified checks or bankable notes. Iams and his winners and sons of winners "stir up the animals." He hypnotizes the buyers with a "horse show" of bargains. Owing to bad crops, Iams' cash, his 26 years experience, he is selling more and better horses than ever. "Willie," buy an "Iams stallion" this fall, save \$300 and get choice of

160 Percherons, Belgians and Coachers 160

Two to six years old, wt. 1700 to 2500 lbs., 90 per cent black boys, 50 per cent tan stallions. All registered and approved. Mamma, Iams is a hot advertiser, but he has "the goods." He sells "toppers" at \$1000 and \$1,500, so good they need not be "peddled" or put on the "auction block" to be sold. He has on his "selling clothes," they fit all buyers. No men with money or bankable notes get away from Iams. He buys, owns and sells more stallions than any man in the U. S., saves thousands of dollars to stallion buyers. He is not in the stallion trust. Iams places 1,000 or \$1,500 insurance.



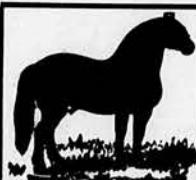
\$1,000—SAVED AT IAMS'—\$1,000

Key, what a rich graft these "slick stallion salesman" are working on the honest farmer, selling fourth-rate stallions at \$2,000 and \$5,000! Iams sells "toppers" so good, big and cheap that they do not need to be peddled to be sold. Mr. Buyer, see Iams' stallion yourself. Take no "gold brick stallion salesman's word." Iams has "the goods" you read about. His establishment is worth going 2,000 miles to see. Iams makes competitors "holler." He is knocking "high prices out" of Xmas tree, Iams saws weds, "butts in," sells more stallions each year. He takes every statement good. George, dear, buy a stallion of Iams. His \$1,300 stallions are much better than our neighbors paid those Ohio men \$4,000 for. Then I can wear diamonds. Iams speaks the languages, buys direct from breeders, pays no buyers, salesmen or interpreters, has not two to ten men as partners to divide profits with. Iams guarantees to sell a better stallion at \$1,000 to \$1,500 than are sold to stock companies for \$2,500 to \$5,000 by slick salesmen, or pay you \$500 for your trouble, you the judge. Iams pays horses freight and buyer's fare; gives 60 per cent breeding guarantee. Write for eye-opener and greatest horse catalogue on earth.

References—St. Paul State bank and Citizen's National bank.

ST. PAUL, NEB.**J. C. ROBISON, Towanda, Kans.**

(Successor to J. W. & J. C. Robison)

Breeder of Percheron Horses**FRANK WASSON,****Importer and Breeder of
Percheron and Shire Horses**

Stallions of age and quality to suit any buyer that wants a good money maker. Prices right and terms easy. Write for particulars today or come and look them over.

FRANK WASSON, Clearwater, Kansas



Just returned home with a grand lot of European stallions—Percherons, Belgians, Shires and German Coach. In all of our 21 years importing we have never landed a better lot; big, strong, massive fellows, heavy bone, good actors and sound as gold dollars; ages, 2, 3, and 4 years old. As to prices, there is no concern in the United States can sell an honest, all sound and all right stallion for less money than we can. Come and see us and examine our stallions.

When you arrive in Lincoln, take the State Farm or Interurban street car. Inquire for Sullivan's barns. If impossible to come at once, write us for further information concerning our stallions.

THE LINCOLN IMPORTING HORSE COMPANY,
A. L. SULLIVAN, Mgr. LINCOLN, NEB.

FARMERS' CHECKS HONORED

If you want to put a little money where it is absolutely safe and will yield from 30 to 35 per cent per annum, write for full particulars to

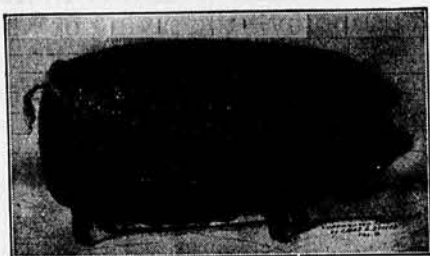
Geo. S. Murray, Formerly Professor Commercial, Emporia, Kansas
Kansas State Normal School.

Attraction Bred Sow Sale DUROC-JERSEYS.

Concordia, Kas., Tuesday, March 17

30—HEAD—30

The grandest and best lot of sows and gilts ever sold in Kansas. This is no idle boast but is just what we say. Come to this sale and see them. The offering consists of 20 head of the Tops of their February



18th not sold on account of storm and 10 head selected from those they intend to keep. Nothing but tops go into this sale.

Send mail bids to either auctioneer, Judd McGowan, or to J. W. Johnson, fieldman for this paper at Concordia, Kans.

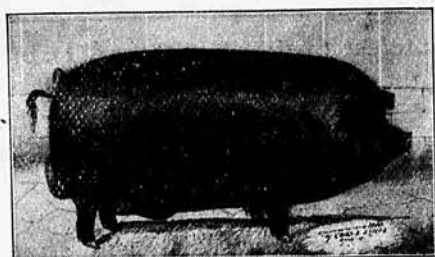
J. W. Jones & Son,
Concordia, Kansas

T. P. Teagarden Wayne, Kansas

Sells Duroc-Jersey Bred Sows at his farm adjoining town.

Wednesday, March 18, '08

This offering will number 40 head, consisting of 5 tried sows, 3 fall yearlings and 32 spring gilts. Ten or twelve will have litters at side by sale day. This is a superb offering. You know the kind I breed.



John W. Jones sells on the 17th at Concordia and breeders can attend both sales as we have the best of railroad connections on both the U. P., B. & M., and R. I.

T. P. Teagarden.....Wayne, Kansas

Col. John Brennan, Auctioneer. John W. Johnson, Fieldman. Catalogues are ready. Ask for one.



100 Choice
Bulls

150

HIGH CLASS



50 Cows and
Heifers

HEREFORDS

Our Big Annual Auction Sale

FUNKHOUSER, GABBERT AND OTHERS

Kansas City, March 26, 27, '28

Breeders! Farmers! Ranchmen! You Can All Buy Here.

This is strictly a **Breeders' Sale of Breeding Cattle**, and from the very herds you would like to select a **Herd-Header**. Here you can have your choice in modern, up-to-date type of Herefords in the blood lines of **Anxiety 4th, March On 6th, Columbus, Imp. Majestic, Imp. Weston Stamp, Imp. Pluto and Hesloda.**

The list of contributors below need no introduction to improvers of the beef type of cattle:

C. W. Armour, Kansas City, Mo.	R. T. Thornton, Kansas City, Mo.
S. L. Standish, Hume, Mo.	Funkhouser Estate, Plattsburg, Mo.
Gabbert & Son, Dearborn, Mo.	Clarence Dean, Weston, Mo.
C. N. Moore, Lees Summit, Mo.	Cornish & Patten, Osborn, Mo.
J. W. Lenox, Independence, Mo.	T. W. Carmichael, Odessa, Mo.
W. A. Dallmeyer, Jefferson City, Mo.	Makin Bros., Grand View, Mo.
James A. Gibson, Odessa, Mo.	Scott & March, Belton, Mo.
Egger Hereford Cattle Co., Appleton City, Mo.	

Remember the date. Come to this sale, visit with the best breeders of the country, thereby broadening your ideas and help yourself and your favorite breed by taking home some of the **big bargains**. We do not expect high prices.

For catalogues address



R. T. THORNTON,

Manager and Treasurer

1313 E. 15th St.,

KANSAS CITY, MO.



**WICHITA,
KANSAS**

Wed., March 25

IN FAIR GROUNDS HEATED
SALE PAVILION

AUCTION

of Registered Aberdeen-Angus Cattle,

From the oldest herd in the United States, embracing a large and splendid collection of females of the more popular families and including also **15 FASHIONABLY BRED YOUNG BULLS**, consigned by Anderson & Findlay, who imported the first breeding herd of Angus cattle to the United States in 1878, and who have continually added since then from the cream of the best herds in Scotland through their personal representative abroad. Some choice bulls also included from the well-known herd of F. E. Shackelford.

For catalogues apply at once to

D. R. MILLS, Sale Mgr., Des Moines, Ia.

America's Leading Horse Importers

The best stallions in France are imported by us. This is proven by the fact that for many years our horses have won every championship competed for at all of the leading shows in France and America. On account of the fact that we import such large numbers, we can sell you a high-class stallion for less than others ask for an inferior animal. \$1,500 will buy a good one. We have no salesmen in Kansas.

PERCHERONS.

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McLAUGHLIN BROS.,

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Write for Samples and Prices. Buy Direct. You Will Save 25 to 50 Percent Every Roll Guaranteed Perfect
ROCK ASPHALT ROOFING CO., 609 X. M. O. A. Building, Chicago

Back of the Bank Book

Is the "Tubular" Cream Separator



EVERY dollar of the farmers' and dairymen's money in the banks of this country represents hard labor and wise economy. It represents head work as well as hand work. But it is a fact that the farmers and dairymen whose balances in the bank are the biggest are not always the men who work the hardest with their hands—nor even the ones who farm the most acres or milk the most cows. They are mostly the men who make every movement count by employing the latest appliances and the most economical methods in their work. They are the men who make mind master over muscle. Much of their wealth is therefore the

result of economy—the saving of what others waste. This means that they are always figuring on how to increase profits without increasing expenses. The first question with such men, when considering the purchase of a new machine is, not how much will it cost, but, **what will it do?** Will it save anything which now goes to waste? Will it do this profitably? That's the test we ask you to apply to the "Tubular."



Saved Price in One Season.

CHERRYVALE, KAN.
June 1, 1907.
I can sell my butter to customers where I never could sell it before getting the separator. We milk six cows and it will make more than enough butter extra to pay for the machine in this one season.
—LAURA I. TURNER

Twice as Much Cream.

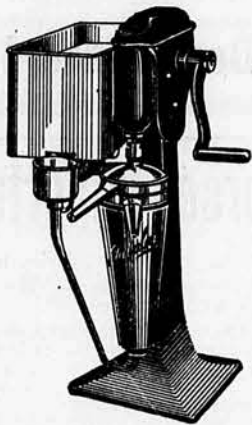
PINE BLUFFS, WYO.
May 14, 1907.
We get twice as much cream as we did skimming by hand. Tubulars soon pay for themselves.
—MRS. G. W. RUSSELL.

Twice as Much Butter.

KAW, OKLAHOMA.
April 24, 1907.
Make about twice as much butter from seven cows, and of a better quality, than we did without it.
—MRS. MARELLA.

Saved Cost in Six Months.

ALTAMONT, MO.
April 24, 1907.
We have a Sharples Tubular Separator No. 4, which we have run three seasons, and which paid for itself in the first six months it was run.
—ROSS DEFORD.



The Best by Every Test

We ask you to apply this test because it will be to your interest to do so. If the "Tubular" will increase your profits without increasing your expenses you ought to have it. It will. It will make every cow you milk earn more money. That's why we want to put a "Tubular" back of your bank book. Thousands of farmers and dairymen testify to the merits of our machines. They say the "Tubular" pays for itself in a short time. When it has paid for itself all that it saves is clear profit for there's no expense—it won't cost you a dollar a year for repairs. We've built it so that it can't.

If you are economically inclined; if you want to save money and increase your bank account here's your chance. Our valuable book, "Business Dairying" will show you how, and our latest catalog tells all about the "Tubular." We'll send them both **free** if you will write today, ask for book No. 165.

The Sharples Separator Co.,

WEST CHESTER, PA.

Toronto, Canada

San Francisco, Calif.

Chicago, Illinois

Comparisons Favor Tubular.
Wyandotte, Mich., July 18, 1907.
Had a — and traded it toward the Tubular. We made one gallon of butter more a week with the Tubular than we did with the —. We have all sorts of Separators in this neighborhood, but the Tubular beats them all, and it is so easy to wash. One of my neighbors has the — from Chicago, and since he saw my Tubular run he doesn't like his one bit.
—ADOLPH PETROSKE.

O. K. in Every Respect.
Trenton, N. J., June 27, 1907.
About May 1 I purchased a No. 6 Sharples Separator and my farmer has been using it. A — agent placed one of his in competition against it, but we were not long in deciding that the Sharples Tubular was the machine for us. I am very much pleased with the work it does, and will heartily recommend it as being O. K. in every respect.
—WESLEY CASE.

Nearly Doubled Butter Yield.
Collinsville, Ill., May 8, 1907.
From five good Jersey cows, while using the water separator, we made from twenty-three to twenty-four pounds of butter a week; with one of your separators from the same cows we made from forty-three to forty-seven pounds a week. I think it would take about \$1,000 to buy my Tubular if I couldn't get another.
—W. H. BOWLER.

Wouldn't Have Other Than Tubular.
Yale, Okla., June 19, 1907.
We think the Tubular Separator simply fine, and can recommend it to be just as you advertise it. I would not be without one of the Sharples Tubulars. We tried another make, but would not have it at all. The Sharples is far ahead of any other Separator that I have ever seen.
—MRS. ALMA CRITTENDEN.