



WHITNEY'S SIBERIAN CRAB, No. 20.

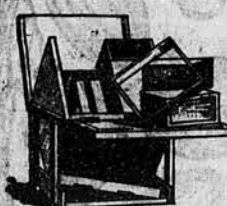


American, Swiss and English
WATCHES & CLOCKS,
 WATCH MATERIALS,
 FINE GOLD JEWELRY, DIAMONDS,
Silver and Plated Ware,
 PLATED JEWELRY AND FANCY GOODS.

Jewelry of every description made to order. Country orders promptly attended to.

HERSHFIELD & MITCHELL,
 Leavenworth, Kansas.

sep-1y



The Easiest Frame to Remove,
 with the Largest Space for
 Surplus Boxes, is the

**DIAMOND FRAME
 HIVE!**

Hives and Territory
 For Sale!

THE NEATEST
CHEAPEST,
 AND BEST
 Summer and Winter
HIVE!

Securing the straightest Combs
 in the Frames, and



IT HAS TAKEN MORE PREMIUMS IN THE LAST
 three years than any other Hive, and for Extractor "can't
 be beat."

Send for Circular, giving description of Hive, which
 is acknowledged by every person using it to be the "best"
 in use.

Choice Colonies Italian Bees, in Movable Comb Hives,
 at \$18 each.

Full line of Nursery Stock always on hand—prices low.
 Mitchell's First Lessons in Bee Culture, 100 pages, "best
 book out." Every bee-keeper wants it. Mailed, post-paid,
 for fifty cents.

State where you saw this reference. Apply to
 W. I. BROKAW, Nurseryman and Fruit Grower,
 Lock Box 7, Rolla, Phelps Co., Mo.
 nov-6m

Evergreen & European Larch Seedlings.
 12 MILLION EUROPEAN LARCH SEEDLINGS;
 8,000,000 Evergreen Seedlings;
 3,000,000 Small Transplanted Evergreens;
 200,000 Transplanted Larches;
 200,000 Seedling and Transplanted Mountain Ash.
 The above are all grown from seeds on our own grounds,
 and are better and cheaper than imported stock.
 aug- ROBT. DOUGLAS & SONS, Waukegan, Ill.

Pearless Potatoes—\$5.00 per Barrel.
 CHOICE VARIETIES OF SEED WHEAT, CORN, OATS
 and Potatoes. Save freights and buy of the pro-
 ducer.
 J. K. HUDSON,
 dec-9t Box 108, Kansas City, Mo.

"KANSAS PACIFIC,"
 A Complete and Perfect Stove, for Wood or Coal, Six Sizes.



E. P. WILSON, Pres't. } **GREAT WESTERN MANUFACTURING CO.,** { D. F. FAIRCHILD, Sec'y.
 P. ESTES, V. Pres't. } LEAVENWORTH, KANSAS. { JOHN WILSON, Treas'r.

SINCE THE ESTABLISHMENT OF OUR WORKS, IN 1865, WE HAVE STEADILY ENLARGED OUR FACIL-
 ties, and are now turning out upwards of Fifty Stoves per day, all of which are made of the best material, and Guar-
 anteed not to Crack from Fire. The plate we are now making is equal to any made in the United States.
 The "KANSAS PACIFIC" is a Stove of our own design, the flues and every portion being constructed with special
 reference to burning soft Western coal. It is a Large and Handsome Stove, Burns Wood and Coal equally well, and com-
 bines all the modern improvements which secure economy and convenience. Thousands of them are in use, all giving
 the most perfect satisfaction. We also manufacture a large variety of Cooking and Heating Stoves, for wood or coal, am-
 ong which is the "WESTWARD," for wood, of which we have sold over Fifteen Thousand in the State of Kansas alone.
 Our Stoves are for sale by dealers generally in the West. dec-3m

NURSERYMAN'S DIRECTORY.

BIDGOOD NURSERIES.—APPLE TREES A SPECIALTY.
 Pears, Dwarf and Standard, Concord Grapevines, Peach,
 Cherry, Plum Trees, and Nursery Stock, at lowest figures.
 oc-1y J. W. BIDGOOD, Leavenworth, Kan.

COAL CREEK FRUIT FARM NURSERIES. WILLIAM L. G.
 SOULE, Proprietor. 15,000 Crab Apple Trees (10 varieties),
 150,000 Apple Trees, Shade Trees, Grapes, and Small Fruits.
 Address P. O. Box 211, Lawrence, Kansas. oc-1y

ENTERPRISE NURSERIES.—ALLEN & KROH, PROPRI-
 ETORS. Correspondence of Dealers and Planters solicited.
 Stock warranted true to name. Agents wanted. Nurseries,
 12th st., Kansas City, Mo. and Wyandotte, Kan. dec-1y

LEE'S SUMMIT NURSERIES. BLAIR BROTHERS, PROPRI-
 ETORS. General Nursery Business. Very heavy Stock, excel-
 lently grown. Fruit & Ornamental Trees, Apple Root Trees.
 Wholesale & Retail. Lee's Summit, Jackson Co., Mo. oc-1y

POMONA NURSERY. S. T. KELSEY, PROPRIETOR.
 Fruit, Forest and Ornamental Trees, Seedlings, Hedge
 Plants, Small Fruits. First-class Stock, at Wholesale or Re-
 tail. Pomona, Franklin County, Kansas. oc-1y

FRUIT TREES!

OF ALL KINDS. Also,

Apple Seedlings No. 1, per 1,000,..... \$ 5.00
 Pear Seedlings No. 1, per 1,000,..... 15.00
 Apple Grafts, put up in good order, per 1,000 7.00
 Pear Grafts, per 1,000,..... 20.00
 Osage Hedge Plants No. 1, per 1,000,..... 2.25
 For sale by (nov-6m) H. B. TREAT, Atchison, Kan.

Country Merchants, Attention!

I AM MANUFACTURER AND WHOLESALE DEALER

IN

**STAMPED, JAPANNED & PLAIN
 TIN-WARE!**

AND
HOUSEHOLD FURNISHING GOODS!

No. 411 Delaware Street, Leavenworth, Kan.

Je-1y J. W. CRANCER.

QUINLAN & GERAUGHTY,
 MANUFACTURERS OF AND DEALERS IN
FOREIGN AND AMERICAN MARBLE,
 Monuments, Mantels, Headstones, &c.,
 Seneca Street, bet. Fourth and Fifth, rear of Market House.
 Je-1y LEAVENWORTH, KANSAS.

**JOHN BIRINGER,
 GUNMAKER,**
 AND DEALER IN ALL KINDS OF
 Shot Guns, Rifles, Pistols, Ammunition, &c.,
 CORNER SHAWNEE AND SIXTH STREETS,
 Opposite Odd Fellows' Hall, Leavenworth, Kansas.
 BEING AN EXPERIENCED WORKMAN, AND HAV-
 ing good facilities, I am able to guarantee good work, at
 reasonable rates. Repairing done in the very best manner.
 Also, all kinds of Sporting Apparatus and Fishing Tackle,
 Pocket Knives, &c. jy-1y

B. S. RICHARDS,
 MANUFACTURER AND DEALER IN
SADDLES, BRIDLES AND HARNESS,
 COLLARS, WHIPS, &c., &c., &c.
 No. 50 Delaware Street, Leavenworth, Kan.

OPEN TO INDIAN COUNTRY.

**LEAVENW'TH, LAWRENCE & GALVESTON
 RAILROAD LINE**

HOPE, BY FURNISHING FIRST-CLASS ACCOMMO-
 dations in every respect, by strict attention to comfort
 and safety of the passengers, and by lowering their freight
 rates as fast as increasing business will warrant it, to deserve
 and receive a fair share of patronage, and to promote and
 increase the settlement of the country along its line.

ON AND AFTER JANUARY 1, 1872, TRAINS WILL
 run from Lawrence and Kansas City, as follows:

GOING SOUTH.			
LEAVE—	EXPRESS.	ACCOM'M.	NIGHT EX.
Lawrence.....	11:30 A. M.	8:00 P. M.	.....
Baldwin.....	12:13 P. M.	8:58 "	.....
Kansas City.....	10:00 A. M.	5:00 "	7:00 P. M.
Olathe.....	11:00 "	6:45 "	8:25 "
Arrive at Ottawa.....	12:40 P. M.	9:50 "	10:45 "
Ottawa.....	1:10 "	.....	10:55 "
Garnett.....	2:22 "	.....	12:50 A. M.
Iola.....	3:37 "	.....	2:42 "
Humboldt.....	4:00 "	.....	3:15 "
Toga.....	4:23 "	.....	3:58 "
Thayer.....	5:00 "	.....	4:45 "
Cherryvale.....	5:50 "	.....	5:52 "
ARRIVE AT			
Independence.....	6:40 "	.....	6:45 "
Coffeyville.....	6:45 "	.....	7:05 "
Parker.....	7:00 "	.....	7:35 "

GOING NORTH.			
LEAVE—	EXPRESS.	ACCOM'M.	NIGHT EX.
Parker.....	7:00 A. M.	.....	6:25 P. M.
Independence.....	7:10 "	.....	7:00 "
Coffeyville.....	7:15 "	.....	6:45 "
Cherryvale.....	8:10 "	.....	7:58 "
Thayer.....	9:00 "	.....	9:00 "
Toga.....	9:40 "	.....	9:55 "
Humboldt.....	10:05 "	.....	10:30 "
Iola.....	10:27 "	.....	11:00 "
Garnett.....	11:40 "	.....	12:50 A. M.
Ottawa.....	1:30 P. M.	8:10 A. M.	2:40 "
Olathe.....	3:15 "	11:00 "	4:45 "
Arrive at Kansas City.....	4:20 "	12:35 P. M.	6:00 "
Ottawa.....	1:05 "	8:00 A. M.	.....
Baldwin.....	1:40 "	8:50 "	.....
ARRIVE AT			
Lawrence.....	2:20 "	9:50 "	.....

ALL TRAINS CARRY PASSENGERS.

Night Express, North, will run Daily, Saturdays excepted.
 All other Trains will run Daily, Sundays excepted.

Connections:

At Ottawa with Stages for Pomona, Quenemo, Lyndon,
 and Osage City.
 At Humboldt with Stages for Eureka, Eldorado, Augusta
 and Douglas.
 At Toga with Missouri, Kansas & Texas Railroad, for
 points North and South.
 At Thayer with Stages for Neodesha, Fredonia and New
 Albany.
 At Cherryvale, with Stages for Parsons.
 At Independence with Stages for Elk City, Longton, Peru,
 Elk Falls, Tiedale, Winfield and Arkansas City.
 At Parker, with Stages for Chetopa.

500,000 Acres of Land are offered for sale by this
 Company, in the valleys of the Neosho and its tributaries.
 Freight taken from any point in the East to the end of the
 track, without break of bulk. Through contracts made for
 either freight or passenger.
 For full information, relating to either freight or passenger
 business, apply to O. CHANUTE, Sup't.
 CHAS. B. PROCK, G. F. & T. A., Lawrence.

A GREAT CHANCE FOR AGENTS!

DO YOU WANT AN AGENCY, LOCAL OR TRAV-
 eling, with a chance to make \$5 to \$20 per day sell-
 ing our new 7-strand White Wire Clothes Line? They
 last forever. Samples free, so there is no risk. Address
 at once, Hudson River Wire Works, 130 Maiden Lane,
 cor. Water st., N. Y., or 16 Dearborn st., Chicago, Ill. jy

400,000 STANDARD PEAR TREES AT GREATLY
 reduced rates, and a complete assortment
 of Nursery Stock. Address E. MOODY & SONS,
 jan15-4t Lockport, N. Y.

THE KANSAS FARMER

[ENTERED, ACCORDING TO ACT OF CONGRESS, IN FEBRUARY, 1872, BY GEO. T. ANTHONY, AT THE OFFICE OF THE LIBRARIAN OF CONGRESS, AT WASHINGTON.]

VOL. IX.—NO. 3.] LEAVENWORTH, FEBRUARY 1, 1872. [\$1.50 A YEAR.]

The Kansas Farmer

GEORGE T. ANTHONY, Editor.

A. G. CHASE, ASSISTANT EDITOR.
MISS M. E. MURTFELDT, ENTOMOLOGICAL EDITOR.
B. S. CHASE, VETERINARY EDITOR.

Published Monthly, 75 Delaware Street, Leavenworth.

TAKE NOTICE.

Will the Secretaries of the various Farmers' Clubs, throughout the State, do us the favor to send in their postoffice address, at their earliest convenience?

FARMERS' CLUB.

The School Creek Farmers' Club has changed its name to Dragoon Farmers' Club, by which name it will hereafter be known. The officers elect are as follows: J. D. BROCK, President; D. M. EASTER, J. W. BROCK, E. F. SIMMONS, Vice-Presidents; W. D. FARRAR, Recording Secretary; A. C. EASTER, Corresponding Secretary; N. BLACKCURN, Janitor; J. ULLERY, Treasurer; WM. MCNEILLY, Librarian; H. WARD, ED. SILVERS, JAS. MILLS, SOL. DAVIS, G. BLACK, Directors.

From the reports that we have of this Club, we judge that they mean business. They have an excellent farming country around them, and the community is made up of some of the best farmers in the State. We traveled through this neighborhood three years ago, and camped for several days upon Dragoon Creek. If there is a handsomer spot in the State, we would like to see it.

WHAT IS THE CAUSE?

Mr. THOS. SNODDY, of this county, harvested the past season a field of wheat, consisting of eighteen acres. He has sold the crop this day (January 19), at \$1.40 per bushel. The variety was the Early May. The field was plowed in one land, and in all respects treated alike. The seed was drilled north and south.

Eight acres, on the north end of the field, was the third crop of wheat in succession; while the remaining ten acres was wheat after oats. The eight acres produced two hundred and eight bushels, or twenty-six bushels per acre; while the remaining ten acres produced but one hundred and thirty-seven bushels, or a fraction over thirteen bushels per acre. The ten acres on the south side has not been in cultivation as long as the remainder of the field.

The incline of the whole field is to the south, with a backbone through the center north and south, giving also a gentle slope east and west.

Mr. SNODDY cannot account for the difference in the yield. Was it from lack of proper drainage? We think so.

GIVE the work-horses a good, liberal diet, and use the curry-comb and brush regularly, that they may be in good plight for early work.

FOR THE BEST ACRE OF POTATOES.

J. K. HUDSON, of Wyandotte county, makes the following entry for the Winter Meeting of the State Agricultural Society in 1872:

To the Board of Directors of the Kansas State Agricultural Society:
SIRS: I wish to enter the following field crop for the consideration of the Board in the Winter Meeting of 1872:

BEST ACRE OF IRISH POTATOES.

Number of acres planted in 1871, twelve, in which one and three-quarter acres, were measured, yielding 400 bushels, or 212 6-7 bushels to the acre. This crop was grown on well-drained bottom soil, planted in drills three feet apart, cutting of one eye dropped about fifteen inches apart in the drill, on March 22d and 23d. The variety planted was Peerless, or Brezee's No. 6. The ground was deeply broken, deeply harrowed twice after each plowing, so that the ground was thoroughly pulverized. The drills were made with a large shovel plow, and the cuttings covered with hoes. As soon as the plants were up, the ground was harrowed smooth, and the double shovel plow used for three weeks following for three plowings, the large shovel was run between the rows afterwards twice, hilling at each plowing.

The ground was cleared once between the plants with hoes, and the weeds pulled by hand once after the tops covered the ground. The cost of producing the crop was as follows:

First plowing one acre, \$2; second plowing one acre, \$2; harrowing twice, \$1; marking off, 50 cents; dropping the seed, \$1; covering with hoe, \$1; harrowing, 50 cents; cultivating three times with double shovel, \$1.50; cultivating two times with single shovel, \$1; pulling weeds once, \$1; cost of 7 bushels seed, \$7; cutting seed, 75 cents; hand hoeing once, \$3; digging 222 bushels at 5 cents, \$13.37; rent of land, \$10; making a total cost of \$46.62, or 2 cents per bushel. As it would not cost me over 4 cents to market my crop, it could be sold at 25 cents without loss. As the average price in this market during the season passed has been 50 cents per bushel, the crop has yielded a profit of 100 per cent.

J. K. HUDSON.

Sworn to and subscribed before me this 8th day of January, 1872.

J. L. PRITCAARD, J. P.,
Wyandotte County, Kansas.

PROTECTION AGAINST WIRE FENCE.

Each year proves the more that some legislation is needed on the subject of wire fence. The amount of stock that is injured or killed each year by these fences, amounts in the aggregate to a large sum; and means should be taken to prevent, if possible, this destruction of property.

W. W. FITCH, writing to us from Gray's Mills, Pa., says he had a valuable mare killed outright, last season, by running against a wire fence. All the protection that is needed is a slat nailed to the top, so that stock can see where the fence is. Would not a law requiring this to be done be of benefit to almost every neighborhood in Kansas?

KANSAS STOCK GROWERS' ASSOCIATION.

In accordance with previous notice a meeting was held at Prof. HOUGHAM's room, at which time and place an organization was effected called the Kansas Stock Growers' Association, the object of which is to secure improvement in the breeds and management of stock. Any person may become an annual member by paying one dollar, and a life member by paying ten dollars. A constitution was prepared and adopted. The following officers were elected for one year:

Judge L. D. BAILEY, President; Dr. L. STERNBURG, First Vice-President; Hon. G. A. CRAWFORD, Second Vice-President; O. W. BILL, Third Vice-President; J. B. McAFEE, Secretary; C. W. JEWELL, Treasurer; J. K. HUDSON, O. O. ST. JOHN, JASON YURANN, D. B. LONG and JAMES HANWAY, Executive Committee.

Two meetings to be held each year, one in January, at the time of holding the Farmers' Institute at the Agricultural College, and the other on Thursday at the time and place of holding the State Fair. The Executive Committee, President and Secretary will meet four times each year, and have the general charge of the business when the Association is not in session, and may be called together at any time by the President, at the request of a majority of the members of the Committee. The President (alternate First Vice-President) is requested to deliver an address at the next Annual Meeting.

Resolved, That the Secretary furnish a report of this organization to THE KANSAS FARMER, The Prairie Farmer, The National Live Stock Journal, The Western Planter and to Kansas papers.

L. STERNBURG, Chairman.

JASON YURANN, Secretary.

State Agricultural College, Manhattan, Kan., Jan. 19th, 1872

ARE WE MOVING?

The farmer being intimately associated, should be well acquainted with Nature; and if he would act upon the lessons the Dame teaches, he would be better off in body, mind and purse. One of the first, as well as most important, of these lessons, is growth. In all animal and vegetable nature there is a continued growth, only checked by short seasons, to enable nature to recuperate her energies. So it should be with all mankind, and especially farmers. No man can hope for success in life, no man can expect to accomplish anything worth living for, unless he grows. In a pecuniary point of view, the farmer cannot afford to stand still. His whole success in life depends upon his active exertions. He must read and study well, all that pertains to his calling, or he will be left behind in the race of life. It should be the first work of every father, to see that his children have every opportunity offered them for a healthy, vigorous growth, and we know no better agent to accomplish this, than the newspapers and magazines of the day. Furnish them in any quantity that can be used, and the money thus spent will give a better return than upon any other investment we know.

A WORD WITH LEGISLATORS.

Our statute book contains a very simple and effective law, providing for the publication of stray animals, taken up in any portion of the State, in *THE KANSAS FARMER*, a copy of which paper is furnished, free of cost, to the Clerk of each county in the State, whose duty it is to keep them on file for the use of the public.

When *THE FARMER* came into our hands about five years ago, this was found to be its legal relation to the State. How, or through whose agency, the law was passed, we did not then, nor do we now know. Whatever may have been its value to previous publishers, it possesses no value to the present one. The fee fixed is less than one-fourth that charged for the same type-space to other advertisements.

Each year an effort has been made to repeal or amend the law—a movement instigated by a claim set up by a portion of the local press of the State, that the law was enacted in the interest of one paper, giving it patronage rightfully belonging to them. At the last meeting of the Editorial Association of Kansas, this feeling took shape in a resolution asking repeal or amendment of the law, for reasons above stated.

The Publisher of *THE FARMER* has never objected to the repeal of the law, nor to any amendment of it that will not injure the farmers, in whose interest alone such a law is justified. If this law was intended to benefit this paper, or if it needed such aid for its support at that time, such conditions have long since passed away. *THE FARMER* neither needs nor desires State patronage in any shape or form, and has long carried out the provision of the stray law at a direct money loss, only hoping or expecting to be made good by the good will of those who are naturally its patrons, and are now placed under obligations by the action of the law in their interest.

That the value of this law to us has been greatly overrated, and its worth to county papers misunderstood, will be made clear by the detailed statement herewith appended, showing the number of these notices received from each county during the year ending December 31st, 1871, viz:

Allen.....	49	Labette.....	44
Atchison.....	66	Leavenworth.....	59
Anderson.....	38	Linn.....	54
Bourbon.....	78	Lyon.....	93
Butler.....	15	Marion.....	27
Butts.....	42	McPherson.....	7
Cherokee.....	18	Morris.....	10
Cowley.....	3	Marshall.....	34
Clay.....	17	Miami.....	73
Crawford.....	41	Montgomery.....	21
Cloud.....	1	Neosho.....	35
Chase.....	10	Nemaha.....	50
Coffey.....	45	Osage.....	56
Dickinson.....	16	Ottawa.....	2
Douglas.....	86	Pottawatomie.....	30
Douglas.....	41	Riley.....	19
Davis.....	1	Republic.....	6
Ellsworth.....	1	Shawnee.....	43
Franklin.....	74	Sedgewick.....	5
Greenwood.....	48	Saline.....	11
Howard.....	23	Wabash.....	18
Jackson.....	53	Washington.....	11
Jewell.....	8	Wilson.....	49
Jefferson.....	61	Woodson.....	20
Johnson.....	85	Wyandotte.....	5

Dividing these numbers by two will give, in dollars and cents, the amount paid by each county.

From careful notice of the workings of the law, we are convinced that separating the publication will substantially defeat its purpose, unless each paper is made to furnish a copy to every county clerk, for record, as is now provided. The proportion of stock taken up *outside* the county wherein the owner resides, to those taken up in the county wherein owned, must be as the circumference is to the center of such county. Not less than three-fifths of the strays of the State are found beyond the limits of the county where owned, and frequently two or more counties intervening between the loser and taker up.

In whatever action is had upon this law, we simply ask careful consideration in the interest of the farmer. Neither the interest of this paper, nor that of any other, should be made a basis of action. If any other medium is more available than *THE FARMER*, by reason of its general circulation, or

the class it circulates among, by all means use it. If the work can be as well done, at less cost to the stock owner, so amend the law. Do not leave the price of publication at "regular rates," or in any other contingent form, but *fix the fee* at so much for each notice, as now.

To relieve the present efficient law from its objectionable features, it may be so amended as to give the publication to the lowest bidder, award being made by the Secretary of State, on sealed proposals, annually; the offers to embrace the prime condition of furnishing a complete file of papers to county clerks. If this was done, and the notice limited to one publication instead of three, as now, the efficiency of the law would not be impaired, and the complained of monopoly, or special legislation, would no longer have cause.

THE FENCE LAW WE NEED.

Fencing involves more vexed questions than any other we know of, in connection with the settlement of a country. The fact of right and wrong presents itself at the very threshold of consideration. When a man buys a piece of land, and pays for it, is it not his right to hold and enjoy it, free from all intruders? and is it not the duty of a Government pretending to protect its humblest citizen, to guard the individual by such statutes as are required to protect the sacred right of property, without the costly device of a barricade against men, who in a spirit of lawlessness, propose to reap another's prop, and share the occupancy of land in which they have no rightful interest? Shall a man who owns land upon which unremitting industry will secure a comfortable home for his family, and from which the wherewithal to clothe and educate his children can only be obtained by the use of all his energies and means, be driven from it, because he cannot invest twice the cost of his land in defending his possession? And this is all that fencing means, so far as it relates to law. A man must first buy his land, and then surround it with strong fortifications, often at much greater cost than the land itself, before he has a legal protection in its occupancy and use. It is not stating it too strongly to say that thousands of farmers, in Kansas alone, are kept poor, and compelled to labor without recompense, their children growing up about them in ignorance, spending the days in guarding crops from roving herds, that should be devoted to laying a foundation for character and usefulness in the common school.

The right to a quiet possession of his property by every owner of a farm, will hardly be denied; and when such right is admitted, only the thoughtless or interested can say that penal enactments should not be multiplied, until the weakest find in them ample protection. Viewed, then, from the standpoint of abstract right, we must agree with the most ultra anti-fence party, and unite with them in crying, "Away with fences, except for those who need them to restrain their own stock."

But we find, in considering this subject, questions of public good in conflict with abstract right; and when we view it with reference to the highest interest of the whole people, present and future, it is impossible to conclude that fences should be done away with, even were Legislatures willing to shield crops upon fenceless farms, by penal enactment against the running at large of all kinds of stock.

Boundary lines are held sacred, and watched with jealous care by nations. The same should be true with individuals, and it is true of them. Every man with the least pride of character and love of home, desires a clear, distinct outline of his possessions, always visible, and feels an ease and satisfaction in seeing his little kingdom separated by a reasonable barrier from that of his neighbor. Such enclosures will, in our judgment, never be set aside by high civilization; for we do not admit them to be a demand of mean or selfish natures. The enclosure of a possession in town or country gives it an air of solidity, and its possessor a feeling of independence and security.

Putting sentiment aside, we find in mixed agriculture a necessity for enclosures. There is not a farmer in Kansas who does not recognize the necessity, and none the more on account of other people's stock. He needs them for his own protection in the care of stock necessary to the farm; and if fences are to be used at all, there should be a system of them, embracing exterior and interior lines. Without this, both farm and country become a wild, disjointed patchwork, a disgrace and reproach to individuals and State.

What we most need, then, is such legislation as shall protect the farmer from building a costly fence now, and at the same time secure an *ultimate* fencing of division lines, and such interior ones as individual wants and means justify, with living fences or hedges. We not only want these hedges for the purpose before considered, but for a still more important reason—their influence upon climate and soil.

In an open country like ours, the intersecting of its surface with hedge-rows would necessarily modify the mean temperature of the whole country. The effect of such hedges in protecting grain from cutting winds, has not escaped the attention of any observing farmer, who has had an opportunity to observe it. But this is not the only climatic result of importance attending the presence of hedges. High winds induce rapid evaporation. Who has failed to notice the effect of this upon growing crops? A strong current of air will often cause vegetation to suffer, when a reasonable protection will reduce the current, and diminish evaporation in a degree plainly noticeable. It is believed by the most careful observers that our climate may be greatly modified by the growth of hedges, and that the barrenness of the plains west of us arises more from rapid evaporation, incident to the winds that almost constantly sweep over them, than to sterility of soil. We believe this, and confidently believe that broad belts of trees and intermediate hedge-rows would convert what is now esteemed a desert into a desirable country for agriculture.

If these views are correct, it follows that a stock law which should do away with the necessity for fences, and thus offer a bounty upon neglect in hedge planting, would prove a disaster to the State. We want a law that will help the man who puts forth an effort to help himself, and that will make such effort a common necessity.

A law making a hedge-row, set and cultivated as provided for in the act, a legal fence from the time of setting plants until four years old, would, it seems to us, fully cover the case; provided, it was sustained by reasonable but ample penalties, easy of enforcement, against the owners of depredating stock. Such a law, carefully considered in all its provisions, and made applicable to the whole State, without reserve, condition, or possibility of evasion, would work boundless good, and vindicate the wisdom of legislators enacting it.

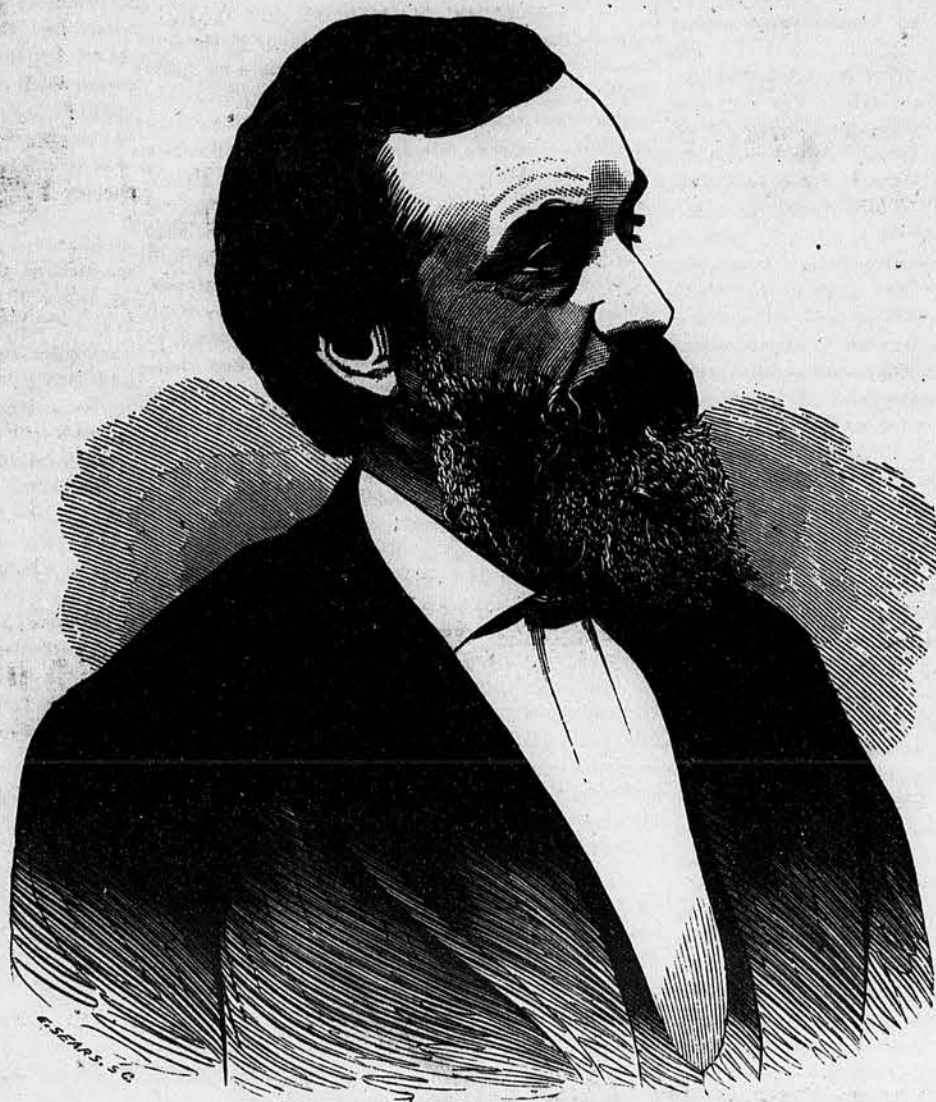
We have often urged this solution of the vexed fence question, not because it was original or novel, but because it seems so completely fitted to the wants of the State, both as to protection of the farmer's crops, and the inducement for him to provide means for self-protection.

With the passage of this law, let the present one, giving a bounty on hedges, be repealed, and we will have more hedge plants set and cared for next Spring, than we should without such action in the coming five years.

ALMOST GONE.

It has been our custom to print enlarged editions at the beginning of the year, to accommodate subscribers that come in a little late, but who wanted the entire numbers. This year we printed several thousand extra copies of the January editions; but this early in the season we find them nearly exhausted.

Those wishing to get the twenty-four numbers of this year entire, would do well to send in their names early.



JOHN FRASER, A. M.,
PRESIDENT UNIVERSITY OF KANSAS. |
(See page 44).

LEAVENWORTH, ST. LOUIS AND CHICAGO MARKET REPORTS.

[CORRECTED TO JANUARY 10TH, 1872.]

	Leavenworth.	St. Louis.	Chicago.
Apples, per bbl.....	\$3 00a 00	\$1 75a 00	\$1 50a 50
Brass, sacked, cwt.....	70a 75	90a 95	.....
Barley, Spring.....	50a 75	80a 85	.....
Butter, per lb.....	20a 25	40a 80	57a 60
Country Cheese.....	15	.....	.....
Corn, in ear.....	28a 30	40a 42	.....
Corn Meal.....	90a 100	1 35a 35	.....
Dried Apples, per lb.....	8	4a 8	.....
Dried Peaches, per lb.....	10a 12 1/2	6a 7	.....
Eggs, per doz.....	25 30	32a 35	27a 28
Feathers, live geese.....	65	62	.....
GAMES			
Prairie Chickens.....	2 50a 00	2 00a 50	5 00a 50
Quail, per dozen.....	1 00a 10	1 00a 15	1 25a 50
Squirrel, per dozen.....	.....	0 60a 75	.....
Rabbit, per dozen.....	.....	0 65a 75	.....
Buffalo, per lb.....	4a 5	5a 7	.....
Deer, per lb.....	.....	9a 11 1/2	.....
Venison, Saddle, per lb.....	1 00a 15	1 25a 75	1 25a 75
Turkey, Wild, each.....	6 25a 70	10 00	9 00a 10 00
Hay, Prairie, loose, ton.....	.....	20 00a 24 00	18 50a 15 00
Hay, Timothy, baled.....	.....	100 00a 140	.....
Hemp, undressed, ton.....	.....	210 00a 315	.....
Hemp, dressed.....	9 1/2	10a 10 1/2	10 1/2a 11 1/2
Hides, Green Salted, lb.....	15a 19	20	19a 20
Hides, Flint.....	7a 7 1/2	8 1/2a 8 1/2	.....
Lard, Choice.....	75	1 00a 1 25	95a 1 10
Potatoes.....	.....	.....	.....
POULTRY			
Chickens, per doz.....	2 50	2 00a 00	1 75a 75
Ducks.....	3 00a 50	3 25a 40	3 00a 50
Geese.....	5 50a 75	6 00a 90	.....
SEEDS			
Clover.....	7 75a 80	6 50a 7 50	6 50a 7 50
Timothy.....	3 50a 40	3 25a 40	3 00
Blue Grass.....	2 00a 30	.....	.....
Orange Grass.....	8 00	.....	.....
Onion Grass.....	3 00	.....	.....
English Blue Grass.....	5 00	.....	.....
Red Top.....	2 50	.....	.....
Millet.....	1 00	.....	.....
Hungarian.....	1 00	.....	.....
Broom Corn.....	75a 100	.....	.....
Flax.....	1 25a 50	.....	.....
Hemp.....	2 00	.....	.....
Castor Beans.....	1 25a 50	1 80a 35	.....
Tallow.....	6a 7	8 1/2	.....
Wool, Tub Washed.....	67a 70	70a 74	50a 75
Wool, Fleeced Washed.....	80a 40	45a 55	50a 55
Wool, Unwashed.....	38a 42	38a 42	30a 42

Furs and Skins.

	Leavenworth.
Wolf, Grey.....	50a 50
Wolf, Prairie.....	25a 25
Badger.....	10a 20
Raccoon.....	15a 30
Fox, Grey.....	10a 40
Fox, Red.....	15a 70
Skunk, Striped.....	20a 50
Opossum.....	5a 10
Muskrat.....	5a 10
House Cat.....	5a 10
Mink, Dark and Glossy.....	1 00a 25
Mink, Pale.....	1 00a 20
Mink, Culls.....	10a 50
Otter.....	3 00a 50
Beaver, Prime, per lb.....	75
Beaver, Heavy, per lb.....	65
Deer Skins, Dressed per lb.....	1 00a 15
Antelope, Dressed per lb.....	75
Elk, Dressed per lb.....	55
Deer, Undressed, per lb.....	25a 25
Antelope, Undressed, per lb.....	25
Elk, Undressed, per lb.....	20
Sheep Pelts, Large.....	1 75a 20
Sheep Pelts, Medium.....	1 00a 12
Sheep Pelts, Small.....	40a 75
Sheep Pelts, Shearings.....	20a 30

FORTNIGHTLY RESUME OF THE MARKETS. MONETARY.

In the Eastern cities there is a marked increase of currency, and loans are effected at decidedly better figures for the borrower. In New York, money was considerably in excess of the demand, as it was also in Chicago, Cincinnati and St. Louis. In the Gold market, but little has been done since our last report, and the premium has varied but little from our quotations. Our latest advices report Gold at 109 1/2 @ 109 3/4.

COMMERCIAL.

There seems to be a studied effort upon the part of the trunk lines of railroads connecting the East and West to advance freights, or, at least, to hold them stiff at present prices, which allows the shipper no margin in prices between the two sections. One means of accomplishing this is to re-raise the freight and stock cars in the East, furnishing shippers but limited facilities for moving the vast stores of grain that are awaiting a market throughout the Western States. In St. Louis there is a general complaint among grain buyers of the want of shipping facilities, and for this reason they are disposed to buy lightly or not at all; and, hence, we have continued low prices. As soon as river navigation opens, we expect to see a material advance in the price of Corn, Oats, Rye and Barley, possibly of Wheat. There is now in store in St. Louis nearly one-half million bushels of Corn, nearly the same of Oats, 25,000 bushels of Barley, and 30,000 bushels of Rye. We quote Corn in that market at 40 @ 45c for yellow mixed to white; in Chicago, we quote 39 @ 40, with a dull market; Leavenworth, 39 @ 39c, with but little doing. Wheat, we quote in fair demand in St. Louis, with prices a shade stronger; the range of prices is \$1 48 @ \$1 60. In this city there is nothing being done in wheat outside of the mills: prices are \$1 30 @ \$1 45, for fair to choice. Oats, we quote 30 1/2 @ 33c, in St. Louis, with limited demand; in Chicago, 30 @ 32 1/2c, and dull; in Leavenworth, 25 @ 26c, with but little doing. Barley, in St. Louis, is in better demand than at our last report, with no material advance in prices; we quote

spring 50 @ 75c; fall, 80 @ 85c; in the same market our advices quote Rye at 75 @ 80c.

In the Live Stock market there is but little change since our last report. Hogs have declined in all the principal markets, and the few remaining in the country will have to be sold at about the figures offered the first ten days of December. We quote herewith an extract from the trade circular of Messrs. Kercheval & Son, of St. Louis, under date of Jan. 30th, who, we may say, handle as much of the Hog product, probably, as any single firm in the United States, and their opinions are received as authority wherever known. The report gives some interesting facts. They say:

In Provisions the market has been against holders; opening dull, it has steadily weakened under liberal receipts of Hogs at Chicago, Cincinnati and St. Louis, and the retiring of speculators, who seem to think, or rather to apprehend, that the receipts of Hogs will continue until March, by which time it is apprehended that the advantages of heavy export and consumption will be so far neutralized that the market, as last year and the preceding, will lapse into dullness, and that it will be impossible to avoid a decline, or to regain sufficient confidence to prevent the bears taking possession, and using it to the annoyance, if not the prejudice, of the parties at interest, who happen to be the largest packers. We can see no authority for such a result, yet it matters not what we think, the trade has to confront facts, not speculations, and notwithstanding nearly, if not quite, all the country points have closed for the season. Hogs continue to arrive so freely in the cities of the West, save Louisville, and possibly Milwaukee, as to produce the impression that the country is full of them, and their delivery only a question of convenience. It is evident that the productive capacity of the country is simply immense, and that when the demand for any article is stimulated by a high price it is impossible to tell how much may be produced. In the case of Hogs, the mere paring with 20c, more or less, by the several growers of the West, would make the difference between a long and a short crop, and either place on the market an excessive or deficient supply. This season, when provisions are relatively cheaper than any other food, and when, in fact, it was claimed that the market price of Hogs did not quit their cost, the force of reasoning was favorable to short deliveries, to the husbanding of them in the country for home consumption, and to the freer sale of other and dearer food, and the hurry with which they were forced into market during November and December was apparently confirmatory of this position, and encouraged the hope that the opening value of provisions was so much below their cost in Europe, or competing food at home, that export and consumption would be so large as to reduce stocks to a point at which they would pay handsomely during the Spring and Summer months. Under this impression many have operated, and it is only of late that the continued liberal receipts of Hogs have succeeded in producing a different impression. In consequence of the "wholesale system" that has been resorted to in magnifying the slaughter, and guessing at what was to come, it is impossible to say what has been packed, yet we do not think that the number reaches 8,500,000, and as the packing is confined to three, or at the most four, places, it would seem that the entire work of the season would be found to be in the neighborhood of four million; 11 so, present fears are groundless, and eventually high prices inevitable. Exports since the first of January preserve their relative increase from November, and from the 1st to 18th of January at New York they were 8,230,400 pounds bacon, 5,809,300 pounds lard, against 4,715,600 pounds bacon, 211 barrels pork, 3,908,000 pounds lard for corresponding period of last year. There is also more going out from Portland, Boston, Baltimore and New Orleans, whilst the shipments from Chicago, Milwaukee, Cincinnati, Louisville and St. Louis are large—at some places tremendous.

At this place packing has been irregular. Several of the packers are about through, or desire to be so, while others are only tempted into purchases of Hogs by concessions, and the fact that they are cheaper and, of course, safer here than at either Chicago or Cincinnati, which are looked upon as regulators of Western trade, though by no means raising the standard of prices to which we conform.

The packing of this place to date is estimated at 236,678, against 274,699 at a corresponding date of last year. To make out the estimate we add to 418,979, the number of Hogs received since 1st November, receipts of wagon Hogs 5,500, and of near-by droves 2,800, and deduct thence exports, 3,501, and 42,000 city consumption.

The Hog market was higher at the commencement than at the end of the week; it opened at \$4 @ 35, with principal sales at \$4 10 @ \$4 25, but has since settled down to \$3 80 @ \$4 25, with principal sales at \$4 @ \$4 10, which is about the closing price.

Mess Pork has been more pressed during the week than at any previous time, and as, in consequence of the better supply and cheaper price of coopersage, an increased quantity is reported to be made by packers, in the cities, operators have stood off from it, and its price has steadily weakened until here were more sellers than buyers at \$12 75 cash, and \$12 seller February. In options there is nothing reported, and the general market is less encouraging than we have seen for some time. There is a small inquiry for rump pork, but other barrel pork is entirely nominal.

Since the above circular was issued Hogs have still further declined, and we now quote prices at \$3 85 @ 4 05 gross, and \$4 50 @ \$4 60 net. In Leavenworth, market prices are \$3 00 @ \$3 25 gross; \$3 75 @ \$4 00 net, with but little doing; two or three of the largest packers having withdrawn from the market.

Cattle, since our last report, have held their own, with an advance in price for the better grades; it seems to be the opinion of some of the best judges that Cattle will bring a fair price the coming season, and, from our observation, we are inclined to favor this view; some of the reasons for thus believing, we have given heretofore. In New York our advices report the market lively, with a good demand for the better grades of Cattle, and prices are given at 6 1/2 @ 8 1/2c gross, for No. 1 Steers. In St. Louis the demand is fair, with ready sales for good to choice Cattle at prices ranging at \$5 25 @ \$6 25 for choice, weighing 1,450 to 1,700 pounds, and \$4 25 @ \$5 00 for fair to good, weighing from 1,100 to 1,400. In Chicago, there has been no upward tendency in the Cattle market, but prices are not below those of two weeks ago. Eastern buyers have operated liberally at present quotations. Extra steers, averaging 1,400 and over, \$6 25 @ \$6 50; good to choice 1,200 to 1,400 pounds, \$5 50 @ \$6 00; fair, \$3 50 @ \$4 25.

The Leavenworth Cattle market presents no new features, and probably will not until the opening of navigation. High freights operate seriously against us. We quote choice

graded Steers at \$4 50 @ \$5 00; good to fair, \$3 75 @ \$4 25; common, \$3 00 @ \$3 50; nothing being done in Texas Cattle. In all the Eastern markets, Sheep are in fair demand, and range from \$4 00 @ \$5 50 per head, in both Chicago and St. Louis.

The local market represented in the table above presents no new features, unless it be in the Butter market; we have not, in the past five years, known Butter in the market, so low at this season, as it is now; the price, however, should not be taken as a guide for a strictly prime article; a No. 1 article of fresh Butter can be readily sold in this market to-day to consumers, at 35 @ 40c; we have to base our quotations upon the general market.

RESTORE YOUR SIGHT.



Spectacles Rendered Useless.

OLD EYES MADE NEW.

All diseases of the Eye successfully treated by

Ball's New Patent Ivory Eye Cups.

Read for yourself and restore your sight.

Spectacles and Surgical operations rendered useless. The inestimable Blessing of Sight is made perpetual by the use of the new

Patent Improved Ivory Eye Cups.

Many of our most eminent physicians, oculists, students and divines, have had their sight permanently restored for life, and cured of the following diseases:

1. Impaired Vision; 2. Presbyopia, or Far Sightedness, or Dimness of Vision, commonly called Blurring; 3. Asthenopia, or Weak Eyes; 4. Sore Eyes—especially treated with the Eye Cups—cure guaranteed; 5. Weakness of the Retina, or Optic Nerve; 6. Ophthalmia, or Inflammation of the Eye and its appendages, or imperfect vision from the effects of inflammation; 7. Photophobia, or Intolerance of Light; 8. Overworked Eyes; 9. Mydriasis—moving specks or floating bodies before the eyes; 10. Amaurosis, or Obscurity of Vision; 11. Cataracts, Partial Blindness, the loss of sight.

Any one can use the Ivory Eye Cups without the aid of doctor or medicine, so as to receive immediate beneficial results and never wear spectacles; or, if using now, to lay them aside forever. We guarantee a cure in every case where the directions are followed, or we will refund the money.

2309 Certificates of Cure.

From honest Farmers, Mechanics and Merchants, some of them the most eminent leading professional and business men and women of education and refinement in our country, may be seen at our office.

Under date of March 29, Hon. Horace Greeley, of the New York Tribune, writes: "J. Ball, of our city, is a conscientious and responsible man, who is incapable of intentional deception or imposition."

Prof. W. Merrick, of Lexington, Ky., wrote April 24th, 1869, "Without my Spectacles I pen you this note, after using the Patent Ivory Eye Cups thirteen days, and this morning perceived the entire contents of a Daily Newspaper, and all with the unassisted Eye."

Truly am I grateful to your noble invention, may Heaven bless and preserve you. I have been using spectacles twenty years; I am seventy-one years old.

Yours truly,

Prof. W. MERRICK.

REV. JOSEPH SMITH, Malden, Mass., cured of Partial Blindness, of 18 years' standing, in one minute, by the Patent Ivory Eye Cups.

E. C. ELLIS, late Mayor of Dayton, Ohio, wrote Nov. 15, 1869; "I have tested the Patent Ivory Eye Cups, and I am satisfied that they are good. I am pleased with them; they are the greatest invention of the age."

All persons wishing for full particulars certificates of cures, prices, &c., will please send your address to us, and we will send our Treatise on the Eye, of 44 pages, free of charge, by return mail. Write to

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For the worst cases of MYOPIA, or NEAR SIGHTEDNESS, use our New Patent Myopic Attachments, applied to the IVORY EYE CUPS, has proved a certain, sure cure for this disease.

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Employment for all. Agents wanted for the new Patent Improved Ivory Eye Cups, just introduced in the market. The success is unparalleled by any other article. All persons out of employment, or those wishing to improve their circumstances, whether gentlemen or ladies, can make a respectable living at this light and easy employment. Hundreds of agents are making from \$5 to \$20 A DAY. To live agents \$20 a week will be guaranteed. Information furnished Free of Charge. Send for Pamphlet Circulars and Price List. Address

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febl-1y-21*-191.

STOLEN! STOLEN!

STOLEN FROM THE UNDERSIGNED, SATURDAY night, Jan. 30th, 1872, a large black Mare and medium size dark bay Horse. The Mare is about eight years old, weighs 1,200 pounds, and heavy with foal. The Horse is five years old, with heavy black mane and tail. Both Horse and Mare were rough shod all around. The Mare had on a rope and the Horse a strap halter. A boy's saddle, with one wood and one iron stirrup, was stolen with the horses. Any person giving information, leading to the recovery of the property, will be suitably rewarded.

Augusta, January 23, 1872

febl-1y-193

CORRESPONDENCE.

A GREAT NEW ROUTE.

P. S. H. A.

EDITOR FARMER: Knowing that the new route opened from Kansas to the East, via the Chicago, Rock Island & Pacific Railroad, is a matter of great importance to your people, and having lately passed over this new line, I hope it will not be out of place to call public attention to it through your columns.

Leaving Leavenworth at three o'clock, P. M., we crossed the river near the Kansas & Missouri Bridge, a beautiful iron structure now being constructed and nearly completed, for the use of this road. On the Missouri side we found our train in waiting, consisting of four beautiful cars, T. A. CLARK, Conductor, and TOM. HILTON, Engineer; and were soon speeding over prairies and through hills that characterize the richest and best portion of Missouri. Reaching Cameron in three hours and a quarter, "Twenty minutes for supper!" sounded through the cars, as we came to a stand-still at the Cameron depot; and it is due to the "Combs House" to say that the promise was made good by a "square meal," not always or often found by the hungry traveler.

The road-bed, thus far, is in good condition, for a new road, and is being ballasted with stone; and by Spring can make thirty miles per hour, instead of seventeen per hour now made. From Cameron, in the night, reaching Davenport, Iowa, at 7:15 next morning, where the junction is made with the old Chicago, Rock Island & Pacific Railroad. Davenport is the largest town between Leavenworth and Chicago, claiming 20,000 population. Rock Island, on the opposite side of the Mississippi, is also a fine city, but not so large as Davenport. These cities are connected by two iron bridges, which span the river. One very noticeable feature is, that they are not more than ten feet above the water—quite unlike the lofty structure across the Missouri at Leavenworth, which admits of navigation under it at high water.

The road from Davenport to Chicago traverses one of the finest valleys of the West. Much of the way, the road-bed is a shelf in the hill-side, and affords a fine view of the valley below. The road itself is in a splendid condition; its rolling-stock of the newest and best manufacture. Pullman's Palace cars will run between Chicago and Leavenworth, as soon as your Bridge is completed; and I predict that the people of Kansas will find in this new route one of the most pleasant and profitable of Eastern connections.

Chester, Pa., January 16th, 1872.

POMEROY ON BEES.

BY EDWIN H. GRANT.

EDITOR FARMER: A correspondent has, in your journal, criticised a paragraph relative to bees in the address delivered by Senator POMEROY before the Agricultural Society of Kansas. I respectfully ask your permission to reply thereto through the same channel. He said:

It is evident that the Honorable Senator is not posted on bees. He first gives Mr. PEABODY credit for inventing the honey extractor. Maj. HENSCHKA, of Germany, is the inventor. Then he overestimates the yield of surplus honey about one hundred and fifty per cent., and underestimates the price of honey about the same per cent., putting it only six and a-half cents per pound, a little less than Mr. DUTTON gets for sorghum.

I reply to his first assertion that the proof that Mr. PEABODY invented the honey extractor named after him is to be found in the Patent Office Report for 1869, a copy of which I this day send you. See volume I, page 220. Patent No. 96,142 was granted to Mr. PEABODY October 26th, 1869, for his invention of a centrifugal machine for extracting honey from the comb. Patent No. 97,684 was granted to him December 7th, 1869, for his invention of another machine for that purpose. I have seen his models for those inventions. They are on exhibition in the Patent office.

It is true, however, that there are several others who have invented honey extractors. Should their

claims be tested in court, I cannot anticipate the result. To reply to the other assertions of your correspondent, I first quote the sentence in Senator POMEROY's address relative to the movable comb hive and the honey extractor, which he has pronounced untrue.

It is now a well established fact that by the use of these two inventions, a skillful manager of bees can secure one hundred and fifty pounds from each hive.

The people of Kansas are peculiarly interested in this matter. If, as the Senator says, a single swarm can be made to produce annually at least one hundred and fifty pounds of honey, all can realize that the business of bee-keeping is profitable, when so managed; Kansas can, by the use of these inventions, be made "a land flowing with milk and honey;" and its citizens will thank their Senator for calling their attention to the subject, and more, honey may yet become as cheap as Mr. DUTTON's sorghum. If, however, the assertions of your correspondent are true, the citizens of Kansas should be immediately and earnestly warned not to be misled by the Senator; and not to purchase any movable comb hives or honey extractors; and to abandon bee-keeping.

Therefore, I introduce, as testimony, to prove that the Senator spoke within bounds, did not overestimate the product that might be so realized, the statements of gentlemen well known to be "posted on bees," made over their signatures and addresses, in communications to the *American Bee Journal*, published in Washington, D. C. We submit the following to show that there is a "New Departure" in bee-culture, and that the estimate made by Senator POMEROY is below actual results that have been obtained by skilled managers who use those two inventions:

In thirty days I obtained from the hive fifty (50) gallons of excellent thick honey (a gallon will weigh twelve pounds). An average of twenty pounds per day for thirty days in succession is not had for one swarm of bees. I took five and a-half gallons from that hive the first week in September, have at least five gallons more in the hive, over and above what will be required for wintering the swarm. E. GALLUP.

Orchard, Iowa, December, 1871.

MR. EDITOR: In compliance with your request, I send report for 1871. I will be as brief as possible.

In the Spring, I found I had twenty-six stocks, in good order, one queenless, one crippled, and one black colony. The latter I had run against an artificial Italian, as reported in the November number of the *Journal*. It was so weak that it could not stand the cold, and gave up the ghost. The queenless one I doubled up, and killed the crippled one, giving the combs to others. Examined and equalized the colonies, gave each a due share of bees, as near as I could, and about fifteen pounds of honey.

I also bought four swarms in gums and box hives. Two of these had cast swarms before I got them home. All new swarms were fed until their hives were built full of comb, when the weather rendered it necessary.

The result of the season's operations, was an increase to forty-nine (49) strong stocks, and two weak ones.

2,550 pounds of extracted honey.

1,500 pounds of box and frame honey.

500 pounds in old combs.

Bethlehem, Iowa, December 11, 1871.

FRED. CRATHORNE.

The following is part of an article published in the *N. Y. Independent*, Jan. 4th, 1872:

PROFITS OF HONEY.

At a recent Convention of Bee Culturists, held in Cleveland, some statistics of the profits of honey raising were elicited, which were rather amazing. For instance: Mr. QUIMBY, a noted bee-raiser at St. Johnsville, N. Y., had 12,000 pounds of surplus honey from 250 swarms; the best swarms yielding 260 pounds. Of box honey the largest yield was over 300 pounds. This honey was of the very best quality, being made from white clover blossoms. Mr. HOSMER, Janesville, Minn., said that he took six tons of honey from seventy-five swarms, together with their increase, during the season. This honey was mostly made in the time of bass-wood blossoms, or in about twelve days of July. This is a good yield. 12,000 pounds from seventy-five swarms, is an average of 160 pounds per hive.

I believe that bees can be made to produce as much in Kansas as any other State; that its citizens can as readily learn how to manage them properly; and that in five years they will have as many hives as are necessary to supply the State.

Washington, D. C., January 11, 1872.

HOGS AS PROFITABLE STOCK IN KANSAS.

BY O. H. BURBRIDGE.

EDITOR FARMER: Feeling an interest, in common with others identified with and looking to the general prosperity of our State, it may not be out of place to offer a few suggestions on a subject that seems to excite less interest and less attention in our thrifty and growing State than any other. Why it is so, I can't imagine.

Long experience and close observation in handling stock of all classes, for breeding purposes as well as for market, have fully demonstrated to my mind that there is no branch connected with stock-

raising, when fully understood and properly managed, that pays better for the time and attention bestowed and capital employed, than that of hog-raising. They are economical, self-reliant, and less fastidious in their tastes and diet, than any other stock. They save to the farmer the gleanings of his grain fields—the grain otherwise lost frequently from blowing down or straw falling, so that it cannot be saved by machinery, and considerable quantities unavoidably shattered and lost in handling and hauling.

In a sanitary sense, too, they are almost indispensable on a farm, consuming, as they do, almost all manner of decayed vegetables, as well as putrid animal matter, which sometimes becomes a great nuisance during our cattle plagues. In addition to this, they thrive and even fatten rapidly upon the excretions and waste of corn-fed cattle—a saving to the feeder of not less than twenty per cent. of his corn fed out, which would otherwise be a clear loss.

It is estimated in Kentucky cattle feeding, that one hog to a full fed steer will fatten sufficiently in three months for any market, and will keep in growing condition not less than three hogs.

It will be observed, by this mode of winter keeping, with a supply of good summer pasture of red clover, so successfully raised, and to which our fertile limestone soil is so well adapted, that the cost of raising and the production of pork, are much less expensive than most persons are aware of.

The importance of this subject has not been properly appreciated or realized, but must and will be when we estimate the quantity of meat consumed, and the immense revenue arising from the thirty millions of hogs annually slaughtered, valued in the aggregate at about three hundred million dollars; and the fact that the supply of beef cattle in the United States is rapidly diminishing every year, which deficit must be supplied, in a great measure, with pork and bacon, to meet the increasing demand caused by the immense influx of immigrants pouring into the country, who are now, and will be for some time, consumers rather than producers.

Is it proposed, in a country like ours, filling up with such enterprise and intelligence, and possessing such natural advantages—the fertility of her soil, the peculiar adaptation to the successful production of stock, to say nothing of our railroad facilities, &c.—that we will supinely stand still, and allow Kentucky, Ohio, Indiana, Illinois, and a few other States, that have grown rich and are still growing more so at our expense, to monopolize the great source of revenue, in which we should share at least an equal proportion?

It will be our own fault if we do not profit by the example set us, and avail ourselves of those natural advantages furnished us, while it is in our power to successfully compete with any State in the Union. Every opportunity is afforded to us that we could desire. We are blessed with good seasons, abundant crops, and railroad facilities which will soon bring us almost to the very doors of our Southern friends, who are suffering for want of supplies so abundantly in our power to furnish, at prices remunerative to us and satisfactory to them. This trade once established, with the advantage of our proximity to their principal cities, we can soon compete successfully with Cincinnati, the great Porkopolis of the world.

So long as the South continues to raise her favorite staples, peculiar to that climate and soil, and the present amicable relations exist between us, just so long we will find a good market for all the pork and bacon we can produce.

The next question that arises is, How and when are we to accomplish this desired object? It cannot be done by one or two, or in a day or a season, but with the united efforts of our stock-raisers we can accomplish a seeming impossibility in comparatively a very short time, and materially improve the financial condition of our State.

What we first need is to increase the number of hogs, sufficiently to justify the erection of first-class

pork-packing establishments. Then the farmers will find a home market for all they can produce and fatten, realizing at home the proceeds of a year's labor, at figures greatly beyond that of the present ruling prices; and the meat would find its way to market through capitalists who can hold and handle it in large quantities.

I have said more on this subject than I intended. My object was briefly to call the attention of our farmers, in a plain and succinct manner, to a subject, the importance of which should be apparent and fully realized by every one; at the same time, hoping these suggestions would induce some one else to take up the subject, and do it that justice which its importance demands.

Emporia, Lyon Co., Kansas, January, 1872.

TRUTH WELL SPOKEN.

BY JOHN ENDSLEY.

EDITOR FARMER: The proceedings of the Kansas State Horticultural Society at its last meeting, as reported in THE FARMER, is, taken altogether, interesting and valuable to all in this, the fruit State. But I would call attention more particularly to that portion of the proceedings which reads as follows:

Mr. E. R. STONE, of Topeka, read a paper upon certain legislation for nurserymen, to protect them from losses through neglect of parties who had contracted for trees, and then refused to take them upon delivery.

Now, undoubtedly, one loss, among others, designed to be guarded against by said legislation, is that met with by "tree peddlers." Nurserymen employ persons to canvass the country, and procure orders for trees, shrubs, &c. The orders are procured, and the trees delivered. Many who ordered will not have money to pay when the trees arrive; and consequently refuse to take them. The trees fall back on the hands of peddler and nurserymen, and a loss is the result. Were these the only parties losing in such business, some legislation might be necessary; but do the nurserymen never impose on farmers and tree buyers, by their agents? From sad experience, and from observation, I know that they do.

Some five or six years ago, I fell into the hands of one of these unmerciful tree peddlers. Before I could rid myself of him, he extracted from me a promise to take trees and shrubbery the following Spring, though I repeatedly begged to be excused, because I feared I could not procure the money to pay for them. All the trees, &c., were to be Kansas grown, labeled, and true to name. Result: The trees were not brought in proper time, but were left for me at the place of delivery after I had ceased to expect them. I procured the money, with difficulty, and took them. Part of the apple trees were labeled, and part were not; and I do not yet know they are what I wanted. The pear trees were to be standard; time has proved but one of them such—the remainder are dwarf. Grapevines were to be Concord; having had no experience with grapes, I find now, after waiting five or six years for fruit, that not one of them is Concord, and all are worthless; and I have also been propagating from them, starting more vines of the same worthless character.

Thus, the money and—what is far worse—several years of valuable time, are lost. I believe nothing but the apple trees had grown an hour in Kansas. Pear, cherry and grape had the appearance of having been shipped from the East the previous Fall. There was but little vitality in the pear and grape, and the cherries soon died.

Once or twice since I have subscribed for shrubbery to a small amount, to get away from the solicitor respectfully; and with similar results. Many others have met with greater loss, and bought their experience much dearer than I, by purchasing of traveling agents; and the loss by such, I doubt not, is much greater than that of the nurserymen.

If discrimination by legislation is had, should it be to protect the nurserymen? or, should it not rather be to protect tree buyers against those button-holing, brazen-faced tree peddlers, who can talk

most farmers out of countenance, and make them believe they need trees and will have the money to pay for them?

We are often advised to go to the nursery, and there get what we want, fresh and true to name; and we will then be sure not to make a promise of the money till we have it. But we are forgetful, and need line upon line and precept upon precept; and I will here take occasion to remind my brother farmers that there are good nurseries within reach of all of us, in Eastern Kansas. When we want anything in that line, let us go to the nursery and procure it, and the usual result will be satisfactory to ourselves and the nurserymen. Then, so far, no class legislation will be needed.

Richmond, Franklin Co., Kan., Jan., 1872.

HUNTERS versus FARMERS.

BY J. K. HUDSON.

EDITOR FARMER: In a late issue of the *Commonwealth*, of Topeka, a "Sportsman" answers a correspondent, who asked the Legislature for more stringent laws for the protection of farmers and fruit-growers against the depredations of hunters. The reply consists more in ridicule and calling of names than in argument, and endeavors, in summing up, to thus dispose of the question for all time to come. He says:

On carefully comparing notes among farmers and sportsmen, it has been found that the grumblers are generally very mean Americans, or what is worse, mean Englishmen.

Let us see about that. Around and near every village, town and city, may be found some of the best of our fruit-growers, market gardeners and small farmers; and it is no disparagement to our large grain and grass farmers farther removed, to say, that as a rule this class of citizens rank quite as high, in point of intelligence and culture, as any others in community. To say that the almost unanimous voice of these farmers is, that hunters and fishermen are a grievous nuisance, is putting the matter as mildly as possible. I have yet to find a farmer or fruit-grower, within three or five miles of a city, who has not had his choicest fruit stolen, or his trees or vines injured, or stock shot by accident or design; and all have had their fields and gardens made the common tramping ground of beggarly, impudent parties, who dignify themselves with the title of hunters and fishermen. While it is true that some orderly, well-disposed persons may be found among sportsmen, conducting themselves properly enough in their irksome travels after pleasure, it is hardly just that a large amount of damage should be sustained yearly by farmers, through the scallawags, who also call themselves hunters, merely to provide liberty for the real gentlemen who wish to engage in this rural recreation. Another phase of this question is, that these hunting parties, made up to go into the country to have a jolly time, are provided plentifully with tangle foot whisky; and the danger from their guns is quite as great to persons near them, as to the small game they shoot at. Armed with a gun, and well shot themselves with tangle-foot, hunting parties not unfrequently become rude and insulting, beyond what is decent or bearable. The most innocent birds, which are friends to the farmer and which he wishes to save, as well as every wild living creeping thing, are considered legitimate game by some of these predatory individuals.

Sunday is the day, of all others, specially dear to these wood-chuck slayers; and while I think that the widest personal liberty should be granted to all persons, consistent with the public good and the rights of others, I am unable to see why the private rights of farmers should not be fully protected by stringent laws. It seems to be no trouble to secure ordinances and laws within corporative limits of cities, for the ample protection of citizens. Hunting of buffalo, elk or deer, and other such noble game, and spearing and seining fish, is one thing; but running over farms for miles after chip-munks and rabbits, and affecting lazy ISAAC WALTON sentiment over angle-worms, is another very different

thing, and one requiring some consideration from the Legislature now assembled.

Hillsdale Farm, Wyandotte Co., Kan., Jan., 1872.

A THRIFTY SYSTEM OF FARMING.

BY CHARLES REIDSCHEE.

EDITOR FARMER: Permit me to give my ideas upon some points connected with Western farming. While the soil of our prairies is good, I think that it can be vastly improved by a proper culture. Of the methods of improvement that I adopt, the following I esteem the most. 1st, Deep plowing. 2d, By rotation of crops. 3d, By leaving all the straw and stubble possible on the ground where it grew. And, 4th, By good cultivation.

Another plan that I have found to succeed well is, to sow oats after harvest very shallow, and plow under in the Fall, and sow to wheat, and repeat the same thing the next season. In this way we can keep our land rich, and secure good crops, and save the trouble of handling manure after a while. I save and use all of my manure, but do not wish to be compelled to depend on it altogether. I stack all my straw where stock can have access to it without going in the fields, and once a week I sprinkle brine over those parts where the stock has been eating. In sowing small grain in the Spring, I harrow down the corn stalks when dry; sow the oats or barley, and then plow three or four inches deep, harrow before the grain sprouts, and then roll with a heavy roller. Barley should be cut rather green, and stacked as quick as dry. This makes the straw equal to hay for cattle. Upland hay I cut between the first and twentieth of September, shock as soon as it will do, and let stand some days before stacking, using a little salt between each layer of hay.

I esteem sheds, in the absence of barns, as essential to good farming, and there is no farmer too poor to make them. Forks, poles and straw are all that are needed.

I desire some information in regard to an orchard. I have a piece of ground lying between two ravines, with timber on the east and north, and expect to plant honey locust and maples on the south and west, with a hedge inside of that. Will some one tell me in THE FARMER what kind of Summer, Fall and Winter apples will do best on the east and west slopes? I wish to plant this Spring. I also desire to know the best time to sow orchard grass in timber lots for pasture.

Carson, Brown County, January 23d, 1872.

FROM ANDERSON COUNTY.

BY J. H.

EDITOR FARMER: I have not seen any communication to THE FARMER from our county for some time, so I thought a few lines might interest your readers in other localities. We have one of the best counties in the State for agriculture, for fruit-growing, wool-growing, stock-raising, or mechanical enterprises. We had a good corn crop, and an abundant hay crop. Our apple orchards, that are coming into bearing, and other kinds of fruit trees, prove that this county will rank among the first for successful fruit-growing. As for stock-raising, we have abundance of pasturage, and the best of water. We had the herd law, or night law, as it is termed, in one or two townships; and the experiment has proved a failure. If it is continued in operation, it will have the effect of driving all the stock out of that part of the county.

As to educational facilities, I think we are not behind our sister counties. We have about fifty organized school districts, and forty-six good school-houses, and school now in progress in nearly all of them, with a good corps of teachers. In Garnett we have a college, conducted by professors of a high order, and attended by a goodly number of students. We have two Farmers' Clubs organized in the county, and several lyceums. We want a more thorough system of tillage, and our success in the productions of the soil will be complete.

The Kansas Farmer

AGRICULTURAL INSTITUTE.

Some three years ago the Regents and Faculty of our State Agricultural College inaugurated an "Agricultural Institute." The idea, doubtless, was suggested by the system of Teachers' Institutes that had proved so profitable to both teacher and pupil in other fields of education. It was originally intended, we believe, to hold these Institutes under the auspices of the College Faculty, in different parts of the State; but this plan seems to have been abandoned for the one of holding these gatherings annually at the College, during the Winter Term.

From a small, and not altogether promising, beginning, these meetings have grown into a magnitude and interest hardly contemplated by their founders, at so early a period in their progress. We predict for them a popularity and usefulness that shall make them a State pride, and a recognized power for good. Each year the circle of attendance widens, and this will continue until every county or considerable community will send up its volunteer or delegated representative, to join these reunions of intelligent industry.

The suggestion of the idea, in Kansas, was quickly taken up by other States, and in two of them, at least, Agricultural Institutes have become a prosperous and permanent collateral to the great vine of industrial education, the slow growth of which has been watched with so much anxiety, but which is sure to bear fruit better and more abundant than the most sanguine hoped for in the planting and rearing.

It was our good fortune to be present a portion of the time during the session of the Institute just closed, and to mark the progress made since it was inaugurated. The proceedings, if carefully edited and methodically arranged, would make a volume well worth the cost of publication by the State as a public document. When we get a Board of Agriculture and publish annual reports, as we should at an early day, one of the most prolific sources of material for such reports will be found in these very Institutes, where men skilled in the various subdivisions of this great field of labor, and men of deep research in the branches of science involved in diversified husbandry, come together for a free, full interchange and comparison of experience and knowledge.

How to bridge the impassable gulf hitherto separating science and common sense, has been a problem unsolved, unattempted almost. In this new educational departure, Agricultural Colleges, we see the skill and the material for so desirable an accomplishment. Let no man discourage it by contempt, or even coolness. Let no Legislator laugh at its impracticability, or withhold from it necessary aid. We shall not attempt to give a connected report of the late meeting at our Agricultural College, but make our note-book and observations the foundation of articles so frequently that the subject shall be kept above the pit of forgetfulness, where we are too apt to consign everything that is a day old, regardless of merit.

PRESIDENT FRASER.

JOHN FRASER, President of the University of Kansas, whose likeness is found in this issue, studied at the University of Edinburgh, and afterwards at the University of Aberdeen, Scotland, where he graduated. During his University course he was the recipient of many class honors, and carried off the "Huttonian Prize" at its close. On reaching this country, he accepted the Professorship of Mathematics and Astronomy in Jefferson College, Pennsylvania.

Like many other brave, good men, he exchanged the quiet of peace for the toil and dangers of war, at the bidding of his adopted country, in our late war, serving with ability, and earning marked

and merited distinction in the field. At the close of the war, he was called to the Presidency of the Pennsylvania Agricultural College, which position he resigned for his present one in the University of Kansas.

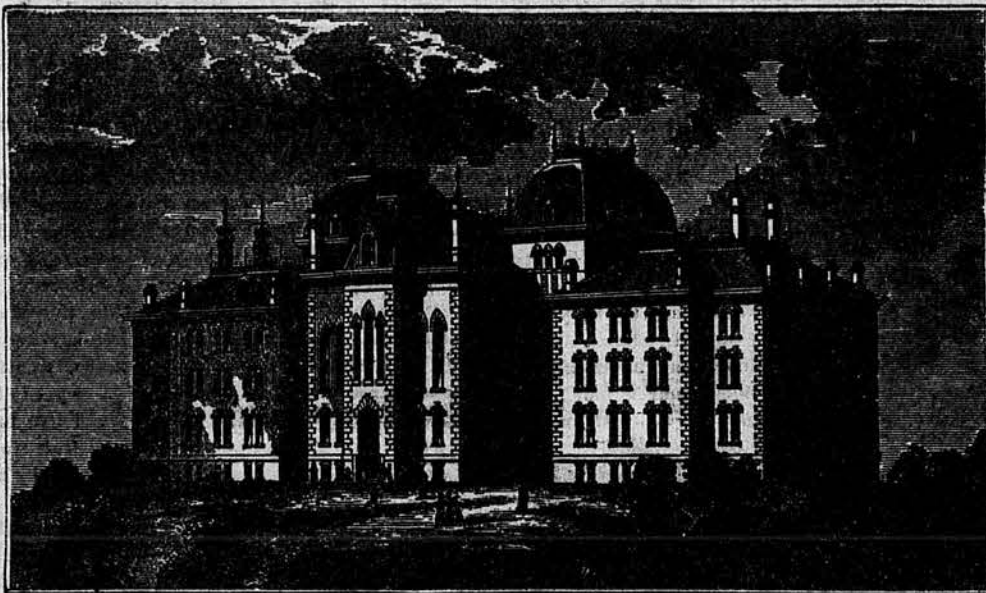
THE UNIVERSITY OF KANSAS.

Municipalities, States and Nations, build up in their midst monuments of enterprise, liberality and wisdom, around which, and in which, cluster and center a noble pride and generous affection. A suspension bridge over or a tunnel under a river, canals, water-works, public edifices of rare beauty and great cost, and many other like works, are always found first in the estimate of a people, as indications of a steady prosperity and a wise liberality. Taxation for such purposes is never a burden, when the tax-payer can see his money honestly and judiciously applied.

Kansas has its chief pride invested in institutions of learning. Our common schools, in all their appointments, are a marvel to all who reflect. School houses are standing in rural districts all over the State, built at the expense of actual comforts in the house of the farmer and mechanic, that in material, architectural appearance, and interior arrangement of furniture and educational appliances, equal the

We shall not attempt to trace the path of this Institution from its beginning, in the Fall of 1868, with but three instructors and an apparatus less pretentious than that of some of our common schools of to-day, to its present condition of prosperity, with ten competent instructors, and a collegiate department fully organized and respectably equipped with apparatus. It is our purpose to give the reader an idea of its present condition and future promise, in connection with a view of the building under construction, which is one that would do credit to any State.

The old building being inadequate, the citizens of Lawrence, not willing to wait the slow stages of ordinary progress in such matters, secured an enabling act; and in February, 1870, presented to the University \$100,000 of city bonds, toward the construction of a new building, that should awaken a State pride and insure an early realization of the high purpose of its founders. This munificent act, on the part of the people of Lawrence, has given them an honored distinction, that will prove as profitable as honorable. It will add intelligence and wealth of population, not otherwise attainable, sufficient to reimburse the \$100,000 many times, before maturity of the bonds. As a municipality,



UNIVERSITY OF KANSAS.

DIMENSIONS.—Length, 246 feet; width of Middle, 98 feet; width of Wings, 63 feet; height of Observatories, 95 feet. **HEIGHT OF STORIES IN CLEAR.**—Basement, 10 feet; First Story, 15 feet; Second Story, 14 feet; Third Story, 13 feet; Hall, 56 by 94 feet, 85 feet high in clear. **APARTMENTS.**—Eight rooms, 23 by 45 feet; eight rooms, 21 by 45 feet; nine rooms, 19 by 53 feet; four rooms, 23 by 40 feet; eight rooms, 18 by 33 feet; two rooms, 15 by 37 feet; sixteen rooms, 11 by 13 feet. Total, Fifty-four rooms, exclusive of corridors, stair-cases, &c. Contains 450,000 cubic feet of space, and 60,000 square feet floor surface; being in floor capacity almost 2½ times greater than the present wing of the State House, that building containing 22,000 square feet of floor.

best in the oldest and richest portions of the East. These school-houses have created a demand for higher institutions of learning, and forbid the thought that one son or daughter of Kansas should be compelled to go beyond the borders of the State to secure the most thorough culture, and the highest accomplishments, within the gift of educational science.

In this issue we give much space to the UNIVERSITY OF KANSAS, confident that no matter of greater interest could be found for home or foreign readers. THE FARMER is read in nearly every State of the Union, for its information about Kansas, in all things of interest to the man who would make it the future home of himself and his family. This fact justifies the sacrifice of current topics of Agriculture, for the statements and illustrations of this article.

The University was contemplated in the Constitution of the State, and was endowed and its perpetuity secured by its enlightened liberality. Its history is interwoven with that of the Commonwealth the honored name of which it bears; and its future life will be a correct measure of the life of the State. It is a part of the public body—a limb that cannot be withered without disfiguring and crippling the whole.

the city of Lawrence has never made, nor will it make, a better investment.

It cannot be charged that the University is a local school. Its class-roll shows two hundred and fifty students, representing twenty-three counties in this State, and sixteen States and Territories beyond its borders; and of ninety-six new students admitted last September, only eighteen belong to Lawrence.

The building is incomplete, and suffering in itself from this cause. The rapid increase of students, also, demands its early completion. To every appearance the building is well adapted to its uses. The money contributed has been judiciously expended. It is the property of the State, although thus far erected free from public cost. The question of its completion by State appropriations is before the Legislature, and will, no doubt, receive careful consideration and honest action. It is not our province, much less our purpose, to advise or influence legislative action; yet, we believe few people in the State would refuse to give their quota, as shown by the tax-roll, for the purpose of completing this building, and furnishing to the Agricultural College and Normal Schools such aid as may be required to keep pace with the progress and necessities of the State. In these things prodigality is better economy than parsimony.

ORIGIN OF BLUE GRASS.

Kentucky Blue Grass is a name so long and so confidently used as the correct one for that valuable species of grass (*Poa pratensis*), that it must require some courage to dispute its origin, or claim any other than Kentucky as the State of its nativity. Yet, WILLIAM RENICK, in a late number of the *American Farm Journal*, of Toledo, Ohio, undertakes to show that Ohio, not Kentucky, has the rightful claim to this honor. He says the present name is a palpable misnomer; that blue grass is not a native of Kentucky, but is a native of Ohio.

In support of his position, Mr. RENICK undertakes to show that the present blue grass region of Kentucky was originally covered by forests so dense as to make it manifestly impossible for it to grow there. That in that early period it could only flourish on rich timberless land, sufficiently retentive of moisture to preserve almost perpetual verdure, and thus protect it from autumnal fires that annually swept the country. He also claims that blue grass was originally introduced into Kentucky from three separate localities: In 1793, by GEORGE RENICK, from the South Branch of the Potomac river, into Clarke county. Mr. RENICK and others took it there at that time, because informed that it was not already found there. About this same time a package of the seed was sent from England to a lady-resident of Kentucky, which was carefully cultivated and in great demand until wide-spread. But the main portion of the seed went from Ohio, where Kentucky cattle owners were in the habit of driving their cattle to graze on the Darby Bottoms, where were "a thousand acres of blue grass growing, which in all probability had occupied the same ground ages upon ages before Kentucky was dubbed with her present name." As early as 1797, he says, it was found growing most luxuriantly on Lancaster Prairie, Ohio.

We give Mr. RENICK's claim for what it is worth, only saying that it seems strange that Ohio should so long have accepted Kentucky blue grass as the rightful name of a grass it had upon its own soil centuries in advance, and the seed of which it had kindly loaned to the State now honored with the name. Shall the name be changed to Ohio blue grass?

This question once open, and it would not be strange if both Kentucky and Ohio are compelled to yield their claims; inasmuch as the same grass is as common in the soil of New England as in the West, where it is better known as June grass. In the mild Winters of Kentucky it has found a more agreeable home than anywhere else; and for its peculiar luxuriance there, it doubtless took the name of the State.

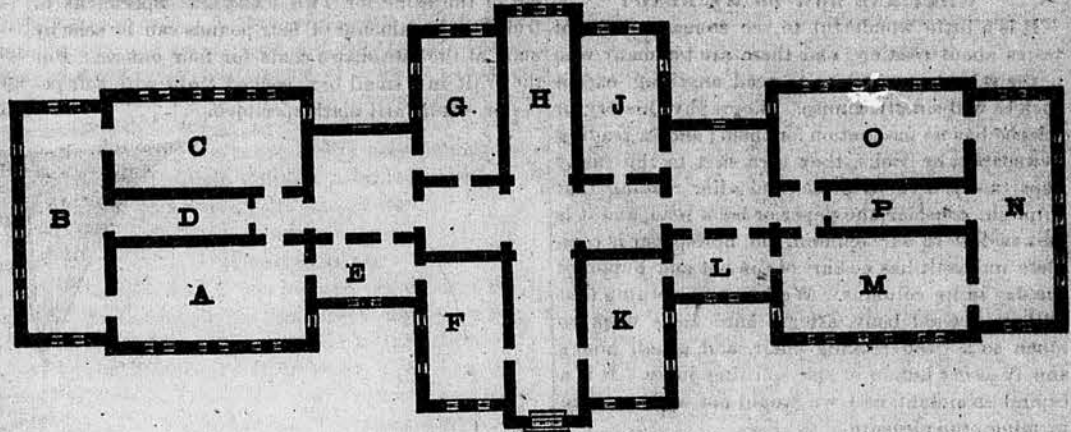
AGRICULTURAL SOCIETY.

The following are the officers elected for the ensuing year by the Nemaha County Agricultural Society: LOUIS R. ZAHN, President; N. COLEMAN, Vice-President; H. H. LANHAM, Treasurer; WM. HISTED, Secretary; and T. B. COLLINS, JOHN SLY, JUDSON M. CLARK, SAM'L LAPPIN, JOSHUA BUSHNELL, W. W. LETSON, JOSEPH W. DENNIS, A. W. SLATER, and DAN'L HUMPHREY, Trustees.

CATALOGUE.

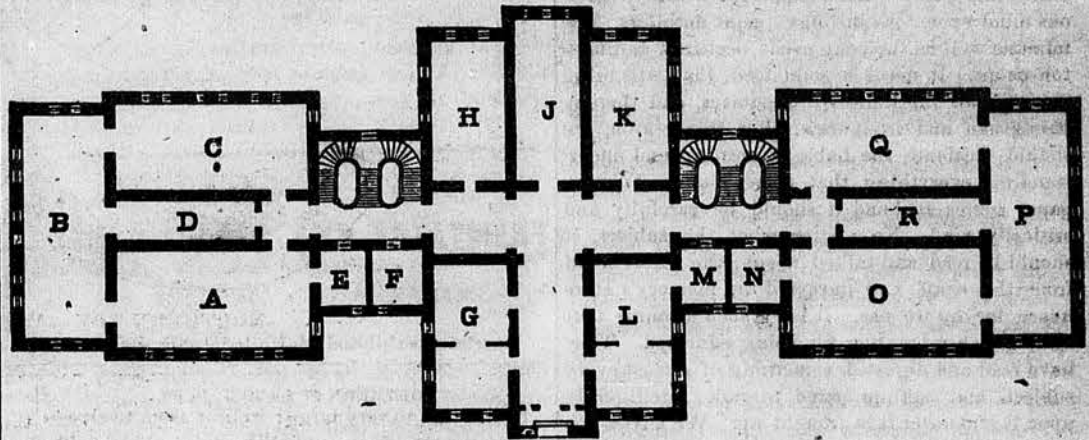
M. S. GRANT, Agricultural Implement and Seed dealer, of this city, has issued one of the neatest catalogues of the season. One-half of it is paged and ruled for a memorandum book, and is handy for a farmer to have. In it will be found cuts and descriptions of all kinds of tools used on the farm, with valuable hints and instructions on sowing grain and other seed. Send stamp and procure one.

UNIVERSITY OF KANSAS—GROUND PLANS.



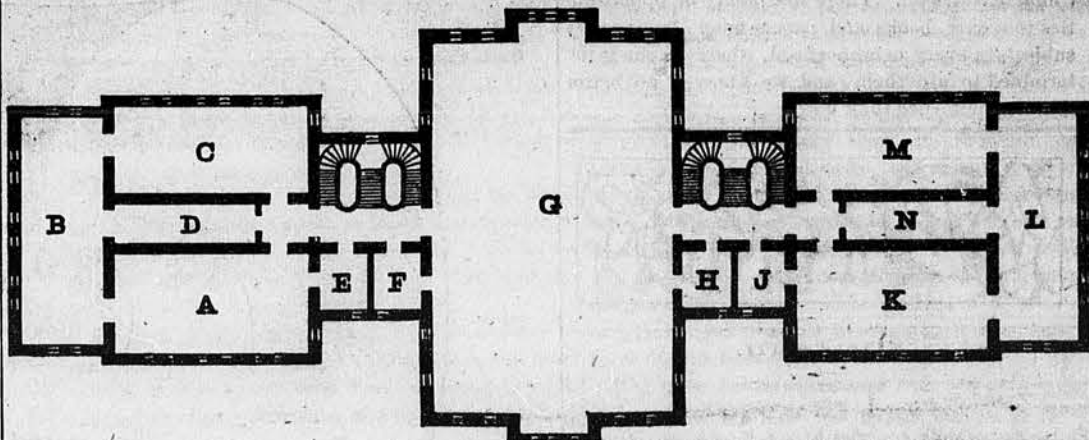
PLAN OF BASEMENT.

A. Chemical Lecture Room. B. Laboratory for beginners in Chemistry. C. Laboratory for advanced students in Chemistry. D. Reagent Room. E. Balance Room. F. Private Laboratory of Professor of Chemistry. G. Chemical Storeroom. H and J. General Storerooms. K. Janitor's Room. L. Standard Weights and Measures. M. Blowpipe Laboratory. N. Workshop. O. Metallurgical Laboratory. P. Tools and Materials.



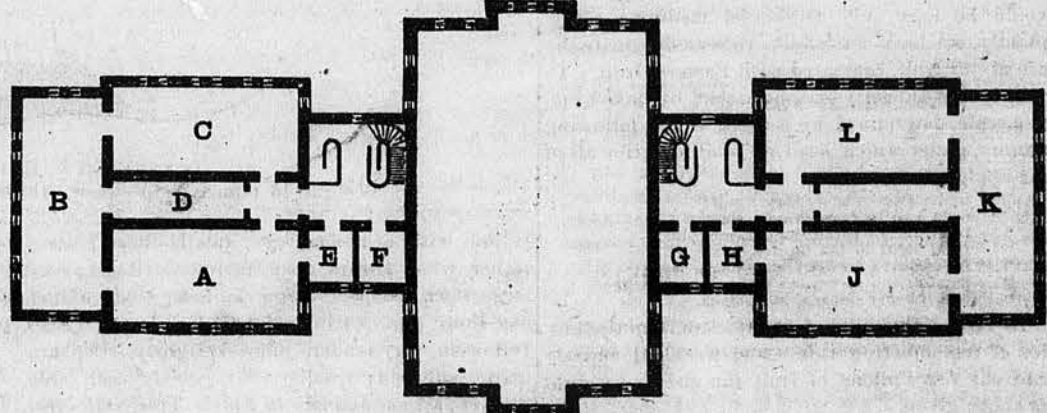
PLAN OF FIRST STORY.

A. Lecture Room—Physics and Mechanics. B. Laboratory Room for beginners in Physics and Mechanics. C. Laboratory Room for advanced students in Physics and Mechanics. D. Apparatus Room. E. Study of Professor of Physics. F. Study of Professor of Chemistry. G. President's Office and Faculty Room. H. Higher Mathematics and Astronomy. J. Ladies' Cloak Room. K. Mental and Moral Philosophy, Logic and Political Economy. L. Regents' Room and Office of Treasurer. M. Study of Professor of History and English Language and Literature. N. Study of Professor of Mathematics. O. Mathematical Room. P. Students' Study Room. Q. History, English Language and Literature. R. Cloak Room for male students.



PLAN OF SECOND STORY.

A. Lecture Room—Natural History and Geology. B. Botanical Laboratory. C. Zoological Museum and Laboratory. D. Botanical and Geological Cabinets. E. Study of Professor of Natural History. F. Study of Professor of Astronomy. G. Hall for General Assemblies and Examinations. H. Temporary Library. J. Study of Professor of Drawing. K. Lecture Room. L. Pen-cil and Crayon Drawing. M. Perspective and Mechanical Drawing. N. Collection of Models.



PLAN OF THIRD STORY.

A. Lecture Room—Surveying and Engineering. B. Topographical Room. C. Museum of Descriptive Geometry and Mechanics. D. Room for Models in Engineering. E. Study of Professor of Engineering. F. Study of Professor of Modern Languages. G. Study of Professor of Latin. H. Study of Professor of Greek. J. Recitation Room in Latin. K. Modern Languages. L. Recitation Room in Greek.

WHAT AND HOW DO WE READ?

It is a little wonderful to see so many different tastes about reading, and there are too many who never school themselves to read anything except such as will simply amuse. Biography, history or science has no fascination for them; and in reading newspapers or books, they turn first to the funny department, if there is one, and after reading that through, consider the paper or book read, and it is cast aside. In our opinion, no newspaper is complete unless it has a share of the wit and humor of the day in its columns. We know of nothing that will rest a tired body, after a hard day's work, so much as a good rocking chair, and a half hour's supply of dry humor or side-splitting jokes. It is a capital stimulant, and we would not wish any one to forego the pleasure.

But our minds must have other and more solid food than mere condiments and sauces. We might as well attempt to nourish our bodies on preserves, jellies and pickles, as to support a healthy, vigorous mind upon Josh Billings' quaint nothings. The mind as well as the body needs beefsteak and mutton chops. It needs a solid food, that will bring into play all the digestive apparatus, and thereby strengthen and invigorate. For this reason, we should cultivate the habit of reading and understanding everything that comes along. When a paper comes to hand it should be carefully and critically read. No matter what the subject, it should be read and talked about; the wheat sifted from the chaff, and garnered in memory's store house for future use. It is by such a course that some gain a reputation for being educated. They have read and digested something of almost every subject, and are prepared to talk intelligently upon it whenever it is brought up. We advise all, and especially the young, to arrange a course of reading commensurate with the time they have to spare, and to follow it closely. For those who have no well defined idea of what they should read, we would advise that they seek counsel from some competent friend. There are plenty of opportunities to secure books and papers upon almost every subject, in every neighborhood, wherever one is determined to use them; and we know of no better time to commence than now.



KANSAS FRUIT.

BY J. STAYMAN.

It is an established fact, well known to our best pomologists, that Kansas fruit is so different in size, form, color and quality, that no standard work is sufficient to identify it. For instance, under the head of size, we have no means of comparing our fruit; for what might be considered large East, would be here only considered medium; consequently, we have no definite rule to designate the size of our fruit, compared with Eastern fruit. To remedy this difficulty to some extent, we have formed a scale, determined by weight, in the following manner, under which head we shall describe all of our apples:

- Apples under two ounces, very small;
- " from two to four ounces, small;
- " from five to seven ounces, medium;
- " from eight to ten ounces, average;
- " from eleven to fourteen ounces, large;
- " from fifteen to twenty ounces, very large;
- " over twenty ounces, monstrous.

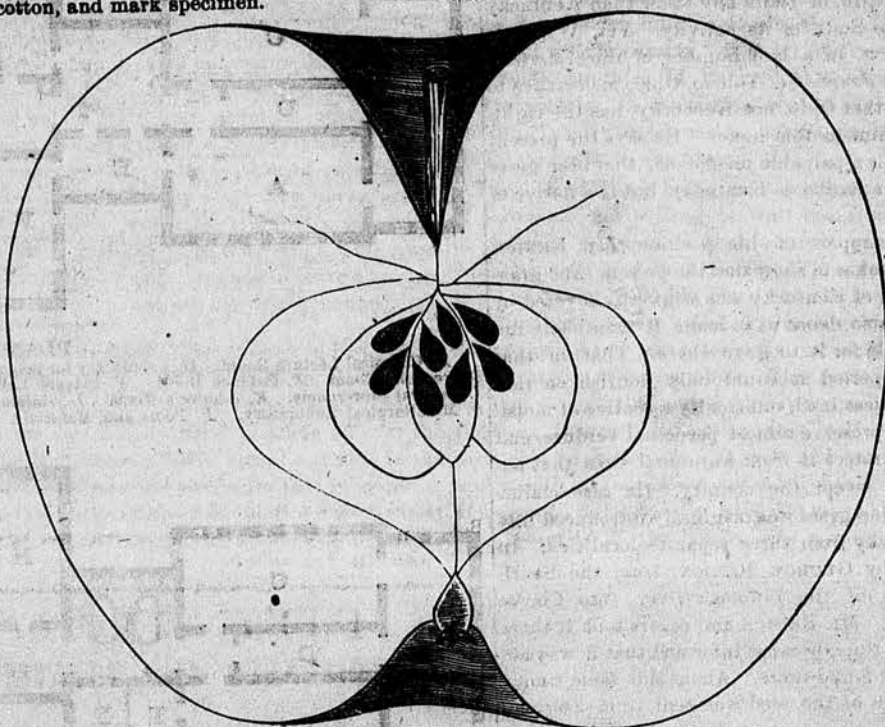
To relieve the mind of our readers from the burden of remembering this scale, we shall embody into our descriptions of fruit the size and weight as above given.

Any reader of THE FARMER having new or valuable old fruit worthy of cultivation, in Kansas, by sending specimens, origin, form of growth, health, and productiveness, we will furnish description and

cut of the same for THE FARMER. Specimens of fruit to the amount of four pounds can be sent by mail, at the rate of two cents for four ounces. Put the fruit in a small box, packed tight with soft paper or cotton, and mark specimen.

COOPER'S EARLY WHITE—15 OUNCES.

Fruit, average to very large; weight ten to fifteen ounces; form, round, regular, slightly flattened at the ends; skin, smooth, clear straw yellow, with an occasional faint blush; dots, small, gray;



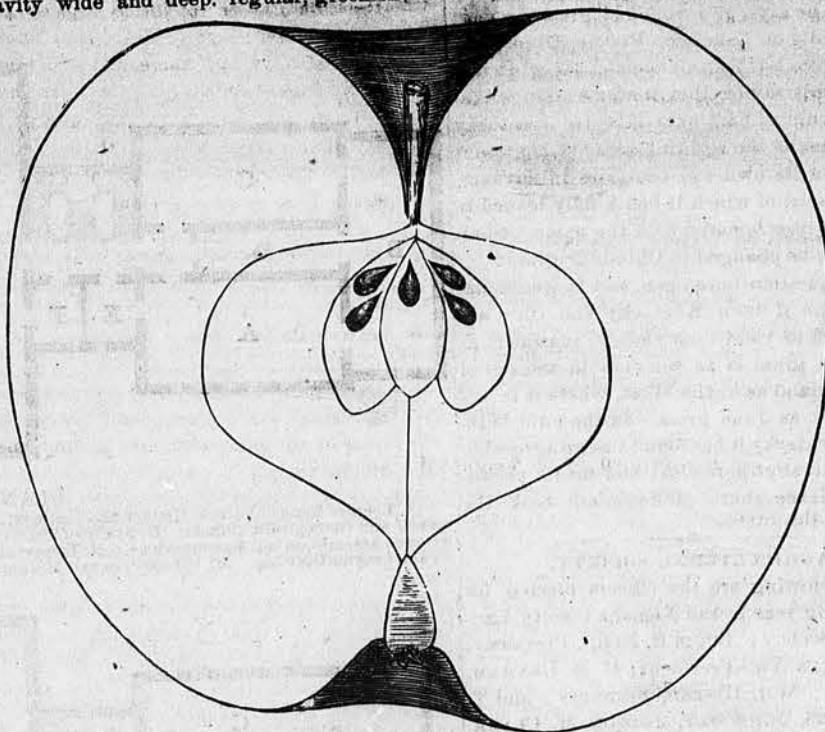
NORTHERN SPY—WEIGHT, 20 OUNCES.

Specimen exhibited at Philadelphia, Pa., in 1869. Raised by Mr. TOOMBLEY, Leavenworth county.

NORTHERN SPY—20 OUNCES.

Fruit large to very large; weight from twelve to twenty ounces; form, roundish conic, ribbed; skin smooth and a thin dull yellow, splashed, striped, and mixed with light redish purple, having a bloom; dots few, scattered, small, light; stem medium, slender; cavity wide and deep, regular, greenish

stem, medium, slender, but sometimes short and thick; cavity, wide, deep, regular, green; eye, large, open; basin, wide, rather deep furrowed; core, large, regular, open; carpels, long, hollow; seeds, large, plump, dark brown; flesh, white, crisp, juicy, mild, sub-acid; quality, quite good; use, market, kitchen; season, August and September. Tree, vig-



COOPER'S EARLY WHITE.

Weight 15 ounces. Specimen exhibited at Richmond, Virginia, in 1871.

yellow with a bloom; eye, small, closed; basin, rather wide, abrupt, deep, furrowed, ribbed; core, large, open; carpels, large, hollow; seeds, numerous, short, plump, pale, pointed, dark brown; flesh, yellowish, very tender, juicy, sprightly, crisp, aromatic, sub-acid; quality, very good; use, table, market; season, January to April. Tree, very erect, strong grower, healthy, not a very early bearer, but will come into bearing sooner on thin soil; bark, dark brown, speckled. This specimen was raised by Mr. TOOMBLEY, of this county, and one of the lot sent to Philadelphia, 1869.

orous, stout, strong grower, making heavy short jointed wood. The earliest bearer and most productive tree we have, very valuable for the first planting to get fruit soon.

Trees planted out in 1867 and 1868 have produced five bushels of apples to the tree this season. The above is one of a sample we took to Richmond, Virginia, to the American Pomological Society, which was the admiration of all who saw it. "Tim Bunker," of the American Agriculturist, in the November number, states what he saw of the productiveness of this variety, when here last Summer.

STATISTICS OF IMMIGRATION.

Monthly Report No. 3, (series 1871-'72) of the Bureau of Statistics, is in press, and contains statements of our foreign trade for the month of September, 1871. The following from its contents we are enabled to lay before our readers through the courtesy of Dr. YOUNG, Chief of the Bureau:

The immigration into the United States for the quarter ending September 30th, 1871, is given in detail, showing sex, age, nationality, occupation, and part of vessel occupied *en route*. It appears that the total number of passengers arrived during the quarter was 125,888, of whom 73,445 were males and 52,443 females; 33,834 were cabin, and 92,054 other than cabin passengers. Of the total number arrived, 19,135 were citizens of the United States returning from abroad, and 7,894 were foreigners not intending to remain in the United States, leaving the number of actual immigrants 98,859, of whom 56,827 were males, and 42,032 females; 22,520 were under fifteen years of age; 63,562 fifteen and under forty; 12,777 forty and upwards. The total deaths on the voyage were sixty-eight.

Of the total number of immigrants, there arrived at New York, 70,416; Huron, Michigan, 7,570; Boston, 7,075; Passamaquoddy, Maine, 6,201; Baltimore, 2,643; San Francisco, 2,013.

The nationalities of the immigrants were: Great Britain, 24,281; Ireland, 14,633; Germany and Austria, 39,650; Sweden, Norway, and Denmark, 9,541; France, 2,006; Switzerland, 585; Spain and Portugal, 182; Italy, 598; Holland, 288; Belgium, 33; Russia and Poland, 634; other countries of Europe, 103; China and Japan, 1,996; Africa, 14; British North American Provinces, 11,824; Mexico, 145; South America, 36; West Indies, 309; all other countries, 1,006.

The occupations were as follows: Artists, 18; bakers, 225; blacksmiths, 446; butchers, 216; carpenters and joiners, 1,163; clergymen, 117; clerks, 642; engineers, 208; farmers, 9,531; jewelers, 108; laborers, 17,278; lawyers, 30; mariners, 374; masons, 453; mechanics, (not specified), 1,726; merchants, 2,234; miners, 1,655; painters, 191; physicians, 58; seamstresses, 107; servants, 2,811; shoemakers, 510; tailors, 480; teachers, 51; weavers, 239; all other occupations, 2,770; occupations not specified, (chiefly women and children), 3,966; without occupation, (chiefly women and children), 51,262.

HOW TO MAKE FARMING PAY.

Extract from an address delivered by Dr. M. A. O'NEILL, before the Black Jack Literary Society:

"The greater part of the soil is naturally possessed of all the elements necessary for plant life, and the atmosphere during the growing season is generally favorable to the proper development and maturity of the growing crops. Occasionally the farmers' hopes are disappointed by the long-continued rains, by drouths, and by the visitation of insects, but such are liable to be in any country. And after looking over the whole ground, and carefully weighing every advantage, we see no reason why that, if those engaged in Agriculture will only pursue it with half the zeal and energy that characterize those in other pursuits, success will surely crown their efforts.

"The day of miracles has passed, and hence we do not expect any one to succeed in anything who does not keep himself posted up with the times—who cannot draw wisdom from the failures and the successes of others, but will *mulishly* persist in his own way of doing things, when, at the same time, his neighbors, who have studied their subject and drawn inspiration from all that surrounds them, know that he is, in all probability, 'wasting his sweetness on the desert air.'

"We place considerable stress upon the mental condition of men in the prosecution of any and every pursuit. Here in Kansas, the most of her farmers should put every foot of land under cultivation pos-

sible. Large farms, when properly managed, have paid the best. A man living on a quarter section for ten or twelve years, and who has yet had only twenty-five or thirty acres of it under cultivation, has, in our opinion, let slip through his fingers a golden opportunity to have been to-day where, in all probability, he is not, viz: in easy circumstances, with his domestic animals neighing, lowing and bleating on a dozen hills around him."

POMOLOGICAL.

Shawnee county has recently organized a Society to be known as the Shawnee County Pomological Society. The officers elected are as follows: J. V. ANTER, President; G. DUDLEY, T. M. JAMES, Vice-Presidents; JESSE MILLER, Treasurer and General Agent; — SALTONSTALL, Traveling Agent.

We have puzzled our brains to guess what the duties of the General Manager and Traveling Agent would be; and we have had to give it up. Will the *Commonwealth* enlighten us?

ARE the plows, cultivators, harness, and other farm utensils, in good working order? If not, repair them at once, that work may not be delayed when the time comes.

THE HOG:

ITS DISEASES AND TREATMENT;

WITH SOME OBSERVATIONS UPON

ITS BREEDING AND MANAGEMENT.

[CONTINUED.]

CHAPTER II.—POINTS OF BOAR AND SOW.

Whatever breed of hogs may be selected, much care and judgment are necessary in selecting proper types as breeding animals. It is not enough that a boar is a Berkshire, a Magie, a Chester or a Suffolk; he must be, in addition to this, a *good hog*. There are degrees of quality among thoroughbreds, if the term may be applied to hogs, as well as among our common "scrub" stock; and no person should be misled by the name, as too many are in their unintelligent endeavors to improve their stock.

There are certain rules applicable to all hogs—say of the large breeds—that should be applied before a purchase is made; and we will here give some of the most important.

First, we want a good bone, for without the foundation you cannot expect to build the superstructure; and the leg below the knee and hock joints are the best place to judge of this. See that the bone of the leg is large, but not coarse.

Select a short, compact head, with a tendency to take on fat at the jowl; but above this, the head should be clean and trim built, showing the outlines of the bony structure plainly, the nose short and small.

Measuring across the chest, the boar should be broad between the shoulders, but the shoulders themselves should be thin, and not overly wide.

He should be deep, measuring from the fifth or sixth vertebrae to the brisket, or immediately in front of the fore legs.

From the shoulder to the ham, very long; and the larger the ham the better.

Taken as a whole, the hog should be wedge-shaped, tapering from behind forward. This is very essential.

In addition to the above, we want the ability to take on fat readily, a kindly, quiet disposition, a good appetite, and large development of the external reproductive organs.

In the sow, we look for a finer contour and more gentleness, but the proportions are much the same as in the boar, with the addition of a wide, roomy pelvis; the teats many and well developed. The width of the pelvis is determined by the breadth between the hip joints. Sows usually are a little shorter in the legs than the boar, and we like to see the belly coming well down to the ground.

These are the more important physical points

that should guide us in the selection of breeding animals; and unless an animal has the most of these well developed, better not breed from them, no matter what the stock.

Too many are willing to purchase a pair of pigs, because they are called Berkshire, or Essex, or Poland-China. As we have said, this is a bad practice. While in those breeds that have been bred long enough, and with care enough, to establish certain points or marks, faulty specimens of either boar or sow will surely convey their own faults to their offspring, to a very large extent. Hence, only perfect specimens of any breed should be used.

Grade animals, or crosses, either boar or sow, should not be used for breeding purposes, if the progeny is to be used as breeders. If the farmer is breeding for market, a grade sow of any breed may be used; but the boar should *always* be of pure unmixed blood. A cross that we can recommend to most farmers, is the pure Berkshire boar, bred to the Poland-China sow. The progeny of this cross will make good-sized hogs, that will take on a large amount of flesh, will fatten at any age, and also fatten on a reasonable amount of feed.

A Chester White sow bred to a Berkshire or Essex boar also produces excellent hogs for fattening purposes.

But every farmer should get the fact engraven upon his mind, that crosses or grades of any kind of stock are valueless, when the offspring are expected to be used for breeders. No fact is better established than this; and until we see it adopted and practiced by the great majority of farmers, we cannot hope or expect to see any marked improvement in the quality of the hogs put upon the market.

Another fact that the farmer should keep prominently in mind is, that while the masses of the farmers want a *large* hog, they also want a hog that will fatten on the least grain. Here is where the profit is made or lost in fattening hogs when prices are low; and it is a point that should receive the careful attention of every farmer.

Breeders of each of the established breeds will tell you that theirs is the best breed, for this reason; but it is a question the farmer must decide for himself. It is, we believe, an undisputed fact that the Berkshire, the Essex, or the improved Suffolk, will do better on grass through the Summer, than will any of our large breeds; and this fact should be kept in view in making a selection of breeding stock. Clover is, undoubtedly, one of the best and cheapest of feeds for stock hogs. If the Berkshire will double his weight on a clover range through the Summer, and the Poland-China will take on only forty per cent. of his weight, it is a fact in favor of the Berkshire, and *vice versa*.

We have before expressed our own preference; and we trust that this and all kindred subjects may be thoroughly discussed in the Agricultural papers, and in Farmers' Clubs. Throughout the Eastern States the farmers have solved many of the problems connected with breeding animals, and are now reaping the profits. It remains for the farmers of the West to do the same.

[TO BE CONTINUED.]

OUR CORNER

Our Book Premiums.—We have delayed ordering the Books to send to those of our Agents who have earned them, by procuring subscribers for *THE FARMER*, that we might form some idea of the number needed. We are now ready to order them; and within the next four weeks we hope that every one of the *two hundred-and-odd* volumes will reach the persons entitled to them.

It gives us real pleasure to be able to supply so many friends of *THE FARMER* with valuable works pertaining to their calling.

Called.—HON. JAMES COOLEY, member of the House from this county, looked in upon us on his way to the Legislature. Mr. C. has already served his district one term in the Legislature, and is, therefore, better qualified to do yeoman service for his constituents, who are mostly farmers. Mr. Cooley is himself a farmer, and a good one.

Elsewhere will be found the advertisement of McGill & Bro., breeders of choice poultry. These gentlemen have been to large expense in procuring pure bred stock, and in fitting up their yards; and we trust that they will receive the patronage from the State that their enterprise merits. Parties buying eggs from them can have some hope of their hatching, as they are reliable gentlemen.

Pomona Nursery.—We have received from S. T. KELSEY, his Catalogue of Prices of fruit, forest trees, small fruit and shrubbery, and in our opinion he has got down to bottom prices. We have seen his stock, and can testify that there is none better in the State. Mr. KELSEY is one of the men with whom it is a pleasure to deal.

Testimony.—E. C. CHASE, of Shawnee, Kansas, writes: "I advertised in a dozen papers last Spring, THE FARMER among others; and the latter brought me more customers than all the others combined." It will be seen that Mr. CHASE uses our columns again this season.

Houdans.—THOS. L. JOHNSON, Esq., of this city, brought into our office a pair of as handsome Houdan chickens as the country affords. Mr. JOHNSON expects to breed the Houdans, and we hope to obtain the result of his experience with them for publication.

Hog-Raising.—We ask particular attention to the article by Col. O. H. Burbridge, of Emporia, upon the subject of hog-raising as profitable stock. It is full of sound ideas and sensible suggestions.

M. M. Kelly, of the Lawrence Tribune, called at our office while in the city. He reports business with the Tribune lively.

G. W. W. Yates, the druggist of Lawrence, probably manufactures and sells more and better Condition Powders than any firm in the West. See his advertisement.

BOOKS AND PAPERS.

Western Home Journal, Lawrence, Kansas; T. DWIGHT THACHER, Editor and Publisher. Among the many excellent Weeklies of which Kansas can boast, there is none more deserving of praise than the above. Its thirty six columns are filled, week after week, with choice matter—latest telegraphic news, correspondence from all parts of the State, and elsewhere, agricultural editorials and selections, together with editorial articles upon all current matters, combine to make it one of the most desirable papers published in the West. It is not local, but is as well suited to the man in Washington or Butler county, as in Douglas. Its Clubbing terms are liberal. Send for sample copy.

Our Fireside Friend; Chicago, Ill.; WATERS, EBERTS & Co. A large eight-page Weekly, devoted principally to literature, art and science. It is a beautiful sheet, and the stories are of a high order of merit. WILL. M. CARLETON, the Western poet, contributes a lengthy poem, on the burning of Chicago, that we consider one of his best efforts. The *Fireside Friend* is said to be backed by a large capital, and if so, will meet with success. Subscriptions, \$3.00, with cheaper rates to clubs.

For Everybody—Monthly; H. H. SAGE, Publisher, Buffalo, N. Y. This beautiful publication for January comes to us in a cover, with one of the prettiest and most life-like pictures upon the outside, entitled "Grandmother's Come," that we have seen for some time. All of the engravings are of the highest order, and the subjects are well chosen. There is no paper that reaches us that we prize more highly, than we do *For Everybody*. Terms, \$3.00 per annum.

Burlington Patriot.—Mr. A. D. BROWN, Editor of the *Patriot*, has recently formed a co-partnership with Mr. S. H. DODGE, formerly foreman of the Lawrence Tribune. The *Patriot* has long been one of the best Weeklies in the State, but the addition of Mr. Dodge will enable them to give still more time and attention to the paper.

The Rural Home, Rochester, N. Y., with the number of January 8th, enters upon its second volume. It is one of the handsomest papers printed in this country, and each number is full to repletion with such matters as interest the farmer and the farmer's family. Terms, \$3.00 per annum.

Public Document.—Our thanks are due to Col. HAYS, Treasurer of State, for a copy of his Annual Report. By it we learn that the total amount paid out during the year ending November 30, 1871, was \$964,228 01; leaving a balance in the Treasury, December 1, 1871, of \$148,517 20.

The N. Y. Musical Gazette, for January, is before us. It is an enthusiastic advocate of advancement in the art and as usual, contains many valuable suggestions to students, choirs, &c., besides giving a large amount of music suitable for churches and Sunday-schools.

New Music.—Our enterprising music dealers, H. M. HOFFMANN & Co., have laid out on our table two sparkling pieces of original music, of their own publication, entitled, the "Narrow Gauge Polka Mazurka" and the "Railroad Gallop." Give them a call.

Catalogue and Price List of CLEMENS'S Ready-made Houses. Parties of small means, desiring to build, would do well to send to RICHARDS, NORRIS & CLEMENS, corner West Twenty-second and Laflin streets, Chicago, Ill.



THE CHINCH BUG.

Chinch bugs are found so generally, this Winter, throughout the West, and in such vast numbers, sheltering among the shocks of corn, under boards, stones, fallen leaves, and other places where they can be hidden, that farmers are beginning to be very apprehensive for the safety of their grain crops the ensuing year. If the Spring and early Summer should prove to be dry, these fears would undoubtedly be realized, except in such cases where the bugs were kept at bay by some of the processes described in the May number of THE FARMER for 1871. But weather savans (encouragingly, from this point of view) are predicting a "wet season," and heavy rains are a most effectual check upon the multiplication of these insects, by drowning their young larvae before the latter have emerged from the earth, in which they are hatched.

The chinch bug (*Micropus leucopterus*—SAY) is a native American insect, and in respect to its almost annual depredations, and the value of the crops to which it confines its ravages, may well be placed at the head of the list of noxious insects. Its appearance was first recorded in the Carolinas, somewhere about the latter part of the last century, where it was found injuring the wheat, but was at that time confounded with the Hessian fly, which had just been imported from Europe; and it was not until 1831 that it was properly classified and named by THOMAS SAY. It very soon made its way westward, where the broad prairie grain fields offered a most inviting banquet to its insatiable appetite; and where, since 1840, it has thriven and multiplied exceedingly, appearing in small or great numbers, according to the season, almost every year.

Great numbers of these bugs may be destroyed by burning over the fields in which they have taken shelter, together with all rubbish around barns, fences, straw-stacks and the like; but notwithstanding that so many are thus killed, a sufficient number will inevitably survive to people the grain fields with their unsavory offspring. It is said, however, that a variable temperature, alternate freezings and thawings during Winter, is very prejudicial to their health. The warm Spring sunshine very soon awakens every dormant bug, and, guided by an unfailing instinct, they proceed to the fields of starting grain, and if the soil is loose and mellow, immediately work their way into the earth and deposit their numerous microscopic eggs upon the roots of the grain. These eggs hatch very soon, and the minute larvae attach themselves at once to the tender roots and begin sucking their juices, so that it often happens that before a bug has shown itself above ground, a severe drain has already been made upon the life-sustaining juices of the wheat plant. In the course of a couple of weeks the bugs, a little larger grown but wingless still, emerge from their subterranean nursery and spread themselves over the stem of the wheat, or other grain, inserting their beaks at every joint and tender place where the flow of sap is most abundant, and themselves appropriating what should have gone to develop the embryo berry, and in the end causing the death of the infested plant.

The chinch bug is double-brooded in all sections of the country where it appears at all, and in the more southern latitudes it is supposed that there may be three broods in the course of a season. With us it is the second brood that hibernates.

The only natural checks to the increase of these voracious and vile-smelling pests, aside from the effects produced by heavy or continued rains, are afforded by several cannibal insects that prey remorselessly upon them; but when the chinch bugs are out in full force, the efforts of our little six-foot-

ed friends, though strenuous, are ineffectual to save our crops.

As these bugs, though winged, seldom fly, their progress from one field to another may often be stopped by the ditch and tarred board, as we described in a former number of the paper; and if the threatened grain is fine and promises a good yield, it is well worth the trouble and trifling expense necessary to save it.

SOAP FOR BORERS.

Quite a spirited controversy has recently taken place, through the columns of the *Prairie Farmer*, between Mr. WIER, a nurseryman of Lacon, Illinois, and Prof. RILEY, of Missouri, in regard to the efficacy of the universally recommended soap washes for the round-headed apple tree borer (*Saperda bi-ttata*)—Mr. WIER taking the ground that soaping the trunk would, in the majority of cases, fail to save the tree from injury; because, if the mother beetle was by these means prevented from depositing her eggs above ground, she would burrow into the soil until she found a portion of the tree uncontaminated, to her taste, by soap.

Prof. RILEY was positive, from his knowledge of the habits of the class of beetles to which this borer belongs, that Mr. WIER must have been mistaken as to the beetle entering the ground to deposit. The finding of young larvae beneath the surface of the ground was no proof that they had been hatched there, as it often happens, after entering the bark, that they make their way downward, instead of upward, for a short distance. From his own experience, and the testimony of numerous orchardists, Prof. R. was certain that no better preventive to the attacks of this insect existed than soap or alkaline washes, if properly and thoroughly applied; and that they were equally effective (as Mr. WIER was willing to admit) against another borer, the flat-headed species (*Chrysobothris femorata*), which works higher up in the tree.

The two-striped *saperda*, the parent beetle of the round-headed borer, deposits its eggs near the base of the tree, during the month of May or early in June; so that, if the tree is kept thoroughly soaped for three or four weeks, at that time of year, it will be safe for the rest of the season.

If trees are carefully examined in the Fall, the presence of borers can easily be detected by the bark, dead appearance of the bark under which they are working; and also, frequently, by a little mass of sawdust-like castings about the hole where the larvae have entered. When found, they can be easily removed or killed with a sharp pocket-knife or bit of wire, without marring the tree. These insects require three years to complete their transformations; the greater part of the time, of course, occupied by the larva state, working both in the sap-wood and the heart of the tree, often cutting a number of diagonal passages from side to side, and slowly but surely taking the life of the tree, by interrupting the flow of the sap. When ready to change to pupa, the larva cuts its way almost through the bark, where, enclosed in a nest of wood filings, it transforms first to pupa, and in a short time to the beetle, which soon makes its way, through the thin shell of bark confining it, to the light and air. The beetle is about three-fourths of an inch in length, elongate, of a cinnamon brown color, with two broad stripes of white down the wing-cases. The antennae are long and many-jointed, curling gracefully over the back. It is very shy during the day-time, working mostly at night, and is in consequence seldom seen unless sought for at the proper time. Like most of the enemies of the apple tree, its depredations have but recently begun to attract attention; yet, in many sections of the country the orchards that ought to be in their prime are already dying out, because of it.

This borer is a "native American," according to Mr. RILEY, originally infesting our indigenous crab apple trees. It is also said to attack pear, quince, mountain ash, hawthorn and junberry; and we have ourselves found in young oak trees a larva so exactly resembling it in appearance and workings,

as to give us reasons for thinking that it may breed in the latter also; although, as oaks do not belong to the botanical family to which it seems most partial, it would be a somewhat anomalous case should it be proven to do so.

The applications of soap, and the unsparing use of the knife when it has once entered the tree, are the only remedies that have been found available against this insect. Indeed, so much confidence has been placed in the preventive efficacy of the former, by both orchardists and entomologists, that they have congratulated themselves on having this enemy at last quite thoroughly under control; and they would be at a loss what to have recourse to, in case the doubts expressed by Mr. WIER were confirmed. We are, therefore, gratified to state that the evidence of both science and experience is entirely in favor of the soap, when it is used according to the directions of those who are familiar with the habits of this *Saperda*.

ON THE SWARMING OF DANAI'S ARCHIPPUS.

[By W. SAUNDERS, in the Canadian Entomologist.]

On the first day of September, while driving along the Lake Shore Road, on the borders of Lake Erie, a mile or two south of Port Stanley, I was favored with a sight that will not soon be forgotten. For several days previous, *Archippus* butterflies had been unusually abundant, and early in the morning of the day in question, some groups—numbering probably hundreds of individuals—which had rested during the night on trees adjoining the hotel at Port Stanley, were gyrating in a wild manner at all heights, some so far up that they appeared but as moving specks in the sky, others floating lower, over the tops of the trees, in an apparently aimless manner. This was, however, as a mere skirmishing party; when compared with the vast hosts seen a little later.

It was about nine o'clock in the morning when, passing a group of trees forming a rude semicircle on the edge of a wood facing the lake, the leaves attracted attention; they seemed possessed of unusual motion, and displayed fitful patches of brilliant red. On alighting, a nearer approach revealed the presence of vast numbers—I might safely say millions—of these butterflies clustering everywhere. I counted a small space, about the size of my two hands, on one of the trees, and there were thirty-two butterflies suspended on it, and the whole group of trees was hung in a similar manner. When disturbed, they flew up in immense numbers, filling the air, and after floating about a short time, gradually settled again. There appeared to be nothing on the trees to attract them; yet when undisturbed they appeared at this time to prefer resting in quiet, as if enjoying the presence of congenial society. I regretted not having a net with me, as I should like to have captured a number of them, to see in what proportion the sexes were represented in the company. Their food plants—the various species of *Asclepias*—did not appear to be unusually common in that section. I apprehended that many of the individuals must have traveled some distance, to be present at that gathering. The fact that the larva of the *Archippus* is but seldom affected with parasites may partially account for their occasional abundance; I only know of one small ichneumon infesting them, and have seldom met with this.

NEW METHOD OF KILLING INSECTS.

At the recent meeting of the American Pomological Society, at Richmond, Va., Col. HARDEE, of Jacksonville, Florida, introduced a new method of killing insects—by concussion. His experiments are as follows: "I placed two pounds of powder in the hollow of a live oak stump, immediately in the vicinity where the curculios promised entirely to destroy my plums, peaches, &c. The powder was fired off one calm night, and it not only destroyed every curculio, but every winged insect in my entire orchard." Other persons have been experimenting with this plan of killing the caterpillar in the cotton field, but we have not yet heard of their success.

We think there may have been some predisposing favorable cause to help Col. HARDEE, but would doubt the general utility of the method. It is probably but of temporary value.

Our Boys and Girls.

A GOOD LETTER FROM A REAL BOY.

BY WILLIE L. CAVENDER.

EDITOR FARMER: I think it is very kind in you to allow little folks a place in your valuable paper; and though I am quite a small boy, yet I will try to write a few lines, to let you hear from this part of the country. I do not see that any of my little friends have written anything for the "Boys and Girls' Column" from this part of the country; although Papa says that more than twenty copies of THE FARMER come to our postoffice.

We have the nicest school-house here that I ever saw. It is of stone, was built last Summer, and we are having our first term of school in it now. We have got the nicest furniture for our school-house that I ever saw; it was bought in Leavenworth. I would like to see Leavenworth; Papa says it is a big town. The name of our school-house is Harmony School-house. Our teacher's name is MYERS; he is a good man, and we all love him. We have thirty scholars in our school.

I like to play first-rate; but I want to be a man. I love horses. Papa says he heard of a little boy once, who was poor and very lazy, and he was obliged to go to work for a man, to get something to eat. The man set him to hoeing in the garden, and the little boy said, "What will I do? I can't stand this." So he stood leaning on his hoe handle until a bright idea, as he thought, came into his mind; and he said to himself, "Well, I'll work on until tater tops get big enough for greens, and then I'll go home and live on greens." What an idea! I'd starve if I had to live on greens. I don't like them; and I hope there is not a boy or girl in Kansas who would be content to live on greens.

I wish I had some good watermelon seeds. I am going to have a garden and some chickens of my own in the Spring. I guess that all the little boys who read THE FARMER never saw a jack-rabbit. There are plenty of them here; they come right up to our school-house, but my dog can't catch them—he's too slow. They can just get over the prairie, I tell you!

Well, good-bye for this time. I hope to see the "Boys and Girls' Column" well filled every time THE FARMER comes to us.

Auburn, Kansas, January, 25th, 1872.



Prescriptions for Sick or Injured Animals, Free.

BY A PROFESSIONAL VETERINARIAN.

The readers of THE FARMER, who have sick or injured Horses or Cattle, can have the advice of a Professional Veterinarian of great experience, through this Department, gratis, by sending an account of the complaint they desire advice upon. No questions will be answered by mail.—EDITOR FARMER.]

Swelled Sheath.

EDITOR FARMER: I have a valuable stallion. When he is standing a day or two without exercise, his sheath will swell and cake, so that it feels hard, and when he is ridden or exercised awhile the swelling goes out. It commences swelling first at the lower end of the sheath, and runs up to his body. I have washed and oiled him with sweet oil, and tried a good many liniments, but it does not stop it. It does not seem feverish, but generally feels cool. He eats heartily and takes flesh kindly, and makes water tolerably free. His legs never stock or swell in standing, like most other horses. Nothing but exercise seems to do any good. I would like to

know if I can do anything to prevent the swelling. A SUBSCRIBER.

ANSWER.—The cause of the swelling is want of exercise. Understanding this, the remedy is easy. It probably would be well to give him a dose of physic. Prepare him for two days before giving the physic, by giving him bran mash twice a day. Then give him one pint linseed oil; aloes, two drachms; ginger, one tablespoonful. Mix, and drench him with it at night.

Indigestion.

EDITOR FARMER: I have a mare, seven years old, which was attacked with what I supposed to be wind colic, but she did not bloat any. I gave her soda and water, which relieved her; but since that time she has been attacked in the same way. What will cure her of the complaint?

W. W. STEWART.

ANSWER.—Indigestion is probably the cause of your horse's trouble. Change her food. Give occasionally a feed of boiled oats, and two or three times a week give her a bran mash. Pour boiling water on the bran, and let it stand until cold. Add a little salt to it.

Gad Fly.

EDITOR FARMER: Every one who knows anything about horses, knows that there is a fly which troubles them in Summer, which deposits a nit on the hairs of the horse, which remains there probably until he sheds in the Spring. What do they bring forth, or what harm are they to the horse? What ails my mare? Her skin is lumpy all over her back, quite rough and scaly. Her appetite is good, and she seems to be healthy otherwise.

DANIEL LONG.

ANSWER.—The nit you speak of is the egg of the gad fly, and when hatched, is technically called *Estrus equi*, or bot—the great bugbear of many horse doctors. The treatment prescribed by them to cure bots has killed many a poor animal suffering from indigestion and colic, or inflammation of the stomach or bowels, which, in the hands of a sensible practitioner, might have been saved. No sooner does a horse manifest symptoms of uneasiness and pain, by pawing, looking round at his sides, and turning up his upper lip, than some bystander pronounces it a case of bots, and prescribes some remedy that would kill a well horse in thirty minutes; and, sure enough, it kills the sick horse too. Now, to account for his ill success, he says that "nothing could have saved the horse, for the bots had eaten through his stomach, and the owner of the horse is satisfied with the result, because, from a boy, he had always heard that bots nearly always killed horses when attacked by them.

In answering the remainder of your question, viz: "What harm are they to the horse?" I do not expect to satisfy many who read this article; but I know whereof I affirm, when I say that there is no such disease as bots, and that they never killed a single horse since the creation; and further, that there is no educated veterinarian of the present day but what holds this statement to be true. The profession, in order to cater to the whims of their patrons, many times prescribe for bots, rather than undertake the herculean task of convincing them that there is no such disease. Understand me: I do not say there is no such thing as bots, nor that at certain seasons or the year they may be found in less or greater quantities in horses' stomachs and intestines; but simply that they do no harm there, and are but following the instinct implanted within them for the propagation of their kind.

It would take a much longer article than I feel at liberty to write in this place, to exhaust this subject.

Your mare has the surfeit. Bathe the lumps with carbolic acid, one ounce; water, one pint. Mix, and apply it once a day. Give internally sulphate of iron, 2 drachms; powdered gentian, 2 drachms; mix; once a day in chopped feed.

Literary Department.

TO THE WORKINGMEN OF EUROPE.

WRITTEN BY JOSEPH HENRY. TRANSLATED BY S. LANG.

Air—Marseillaise.

Come on! ye miserable slaves!
The rich, the proud, your masters are!
Throw off the galling yoke, my braves,
And gladly follow Freedom's star.
Desert the idle, pampered horde,
And country cursed with bigotry;
Oh! come where Freedom's notes accord
With Love, and Life, and Liberty!

CHORUS:

Arouse! ye Sons of Toil!
Here still we have much room!
Come on! Our great free soil,
Columbia, is your home!

Condemned, as Afric's dusky son,
To labor long and wearily;
By cursed Aristocrats undone!
You spend your lives most dearly.
Your pleasures are but few and coarse,
Your minds by ignorance enchain'd;
Your wives and children, even worse,
Are dupes of bad, designing men!

CHORUS—Arouse, &c.

What protection have ye from Crime?
What are your laws but for the grand?
Ah! yours is poverty sublime!
Crime, not Virtue, rules your land.
Oh! martyred Sons of honest Toil!
Your children guard—oh, guard from harm;
Let not base Tyranny despoil
Their lands, their homes, nor them alarm!

CHORUS—Arouse, &c.

Ah! men of valor, rush to arms!
Be the blood of the Toller thine!
His sighs, his tears, his griefs are charms,
To gloat thy soul incarnadine!
Alas! the poor must ever pay:
The bad, the fraudulent, succeed;
The brainless fool his honors weigh,
While honest hands and hearts must bleed!

CHORUS—Arouse, &c.

Down-trodden, priest-ridden Brothers!
Why not aspire to Liberty?
Tell your preachers, and all others,
That you can and must be free!
Let not dull sloth and ignorance
Bow down with shame your manly forms;
Let not your people's ignorance
Be sullied by immodest arms!

CHORUS—Arouse, &c.

Come, leave! oh, leave your worn-out land!
Desert your rotten government.
America now takes her stand
The country most magnificent!
Here Science, Labor, Love and Learning,
Liberty and Independence,
Keep the vestal fires a burning,
Dispensing joy and Freedom's incense.

CHORUS—Arouse, &c.

Salina, Kansas, January, 1873.

CUT DOWN THE EXPENSES.

[From the Lancaster (Pennsylvania) Tribune.]

* * * Now, workingmen, which of these things shall happen to you? Not what *has* happened, but what *shall* happen hereafter? If a man gets only ten dollars a week, he *must* live on eight. There is no use in crying baby, and say you can't—you *must*.

A man, to be good for anything, must have a little cast-iron in his composition; must be able to say, "That which is necessary, *shall* be." A man who cannot master his craft, is sure of shipwreck. If necessary, cut down expenses with a hand as firm as a rock. You must cut your garment according to your cloth. The common run of life is not made out of May flowers, door-yard grass, pressed brick, double skirts, and pink ribbons; but out of night and day, sickness and health, weary years of toil, dangers and perils, disappointments, struggles, decay and helplessness. Pride has no place here to be king; it is a good spur, but a fatal master. The man who would master his necessities, must step in and take the reins. He must plant himself, like a rock against the flood, and say, "Thus far, and no farther," Messrs. Expenses! It requires a little self-denial, but it matters not; self-denial never killed anybody. Will workingmen meet the issue, and

lessen their expenses? They *can*, if they will. They *must*, if they would be freemen!

FOREIGN NOTES.

By JAMES VICK, in the "Rural Home."

The average Englishman thinks that he knows all about the Yankee. In his mind the "universal Yankee nation" is divided into just two classes: The Sam Slick Yankee, who is pretty clever, talks through his nose, and declares the American flag is a "blessed rag," and "she can whip the world." The other class is of the Jim Bludsoe stamp, well represented in BRET HARTE's characters. The reason for this is easily ascertained by a look at the cheap literature. Almost every American book giving a comic view of American life is reprinted in England, in a cheap form, and is to be found for sale at every railroad station, and in the hands of travelers.

The American who thinks all Englishmen kick the *h* around in a very unceremonious manner, but always managing to get it in strong in the wrong place, is equally in error. In the country and provincial towns it is common; but the educated, especially in London, talk very correctly. This is particularly true of the ladies. The men who have to associate with all kinds of people in the way of business, find themselves tripping sometimes, even in the company of ladies at a dinner or evening party, but a pleasant smile or nod from wife or sister or even daughter, puts the transgressor on his guard, and all goes on smoothly again.

The English think much more of "good eating and drinking" than Americans, and one inclined to be abstemious in either respect is considered rather fanatical. I think a minister with the gout would be more highly respected than a very temperate one with good health. In fact, the general idea seems to be to live as well as the income will permit. There is very little of the miser element in the English character. A friend remarked, "we do not live to make money, but make money to live." Every energetic business man with whom I had an opportunity to converse on the subject seemed striving to accomplish some specific object—a house and grounds out of town, horses and carriage, a family boat on the river, a steam-yacht, education and position for children, were mentioned, each one by separate persons, as the object of the present struggle. With us the struggle generally is to make, merely for the love of accumulation.

"YE EDITOR" being absent, his "better half," though decidedly opposed to the "woman's rights" movement, is trying to do duty in his stead. She does not expect to fill the editorial chair, but feels a good deal as EDWARD EVERETT is related to have expressed himself, when induced to fill an appointment for the orator and lawyer CHOATE, who had fallen suddenly ill. A friend, meeting Mr. EVERETT on his way to fill the appointment, said: "So you are going to fill CHOATE's place to-night?" "No, I can't fill it," replied Mr. EVERETT, "but I'm going to rattle around in it!"—[Augusta (Kan.) Republican.]

A GENTLEMAN of a slightly irritable temper, calling out loudly for some hot water from his bedroom, was unanswered. Seizing a small bureau he shoved it before him to the head of the stairs, and sent it whirling, end over end, to the hall below. The crash was loud enough to bring out mother, daughter, and all the servants. The head of the family was seated at the top of the stairs, elbows on knees, chin resting in hands. "Oh father! what is the matter?" asked the frightened daughter. "Matter!" said the old man; "why here I have been a callin' and callin' for nigh on half an hour, and now I've telegraphed for yer, that's all."

A STORY is told of a man in Connecticut who fell from the roof of a five-story building to the sidewalk; but, as he struck on the thick soles of his rubber shoes, he bounded back within a quarter of an inch of the roof, and so continued to bounce, the distance decreasing by only a quarter of an inch each journey. He subsisted on hash enclosed in rubber balls, which he managed to catch on the bound, and at the end of a month was stopped and restored to his family.

WIFE, MISTRESS, LADY.

Who marries for love takes a wife; who marries for fortune takes a mistress; who marries for position takes a lady. You are loved by your wife, regarded by your mistress, tolerated by your lady. You have a wife for yourself, a mistress for your house and friends, a lady for the world and society. Your wife will agree with you, your mistress will rule you, your lady will manage you. Your wife will take care of your household, your mistress of your house, your lady of appearances. If you are sick, your wife will nurse you, your mistress will visit you, your lady will inquire after your health. You talk a walk with your wife, a ride with your mistress, and go to a party with your lady. Your wife will share your grief, your mistress your money, your lady your debts. If you are dead, your wife will weep, your mistress will lament, and your lady wear mourning. Which will you have?

SHARP SHOOTING.—The following dialogue took place between a Virginian and a Yankee picket: "I say, can you fellows shoot?" "Well, I reckon we can some. Down in Mississippi we can knock a bumblebee off a thistle blow at three hundred yards." "Oh, that ain't nothing the way we shoot up in Vermont. I belong to a military regiment there with a hundred men in each company, and we went out to practice every week. The cap'n draws us up in single file, and sets a cider barrel rolling down the hill, and each man takes his shot at the bunghole as it turns up. It is afterward examined, and if there is a shot that didn't go through the bunghole, the member who missed it is expelled. I belonged to that regiment ten years, and there ain't been nobody expelled yet."

Billing's Moral Philosophy.

It iz better tew leap one rod, and strike on yer feet, than tew leap two rod and strike on yer hed. This iz a well-known fact.

Men of little authority are like men of little strength, always ankious tew lift something.

There is two kind of men I don't care to meet when I am in a great hurry; men that I owe and men that want to owe me.

You will alwus notis one thing, the devil never offers to go into partnership with a buzzy man; but you will often see him offer to jine the lazy and furnish all the capital.

Hope hez made a great menny blunders; but there is one thing about her that I alwus did like; she means well.

Most enny body thinks that he can keep a hotel (and he ken), but this akounts for the great number ov kussed mean ones all over the country.

Convince a phool of his error and you make him your enemy.

A man whom you ken hire to work on a farm for nothing and board himself will just about earn his wages.

The highest rate of interest we pay iz for borrowed trouble. Things that are alwus going to happen never do happen.

Face all things; even adversity is polite to a man's face.

Whenever I see a man anxious tew get into the middle ov a fite that don't belong tew him, I am alwus anxious to have him, for I kno he is sure to be the wust whipt man in the party.

There ain't but few men weak anuff tew admit their jealousy; even a disgraced rooster in a barn-yard will git a leetle further off and begin to crow up a new reputashun.

Deth is an arrow shot into a kroud; the only reason whi it hit another is because it missed us.

Arly genius is like arly cabbage, it ain't apt to hed well.

A man with a phew branes is like a dog with one flea on him—dreadful oneazy.

THE method of madness is a matter of frequent demonstration. Quite recently a man was taken to the insane asylum at Utica who labored under the delusion that he was God. When he arrived there he found that there was another deity in the institution, in the person of a much larger man. The smaller lunatic seemed to reason that he could not be God, but that he would be as near it as possible; and he forthwith announced himself as attorney-general of the United States.

Household Recipes.

Pork Pudding.—One cup of chopped pork, one cup of molasses, one teaspoonful soda stirred into it, one cup sweet milk, one cup raisins, all kinds of spices, flour to make a stiff batter. Steam four hours. Sauce—one cup of white sugar put into one cup of boiling water; then pour upon two well beaten eggs. Add a small piece of butter, and flavor with lemon.

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