



CATTLE.

125 RAVENSWOOD :: SHORTHORNS 125

C. E. LEONARD, - - BELLAIR, MO. Males and Females For Sale. Inspection especially invited. Lavender Viscount 124755, the champion bull of the National Show at Kansas City heads the herd. R. R. and Telephone Station, Buncoeton Mo. ED. PATTERSON, Manager

Norwood Shorthorns

V. R. ELLIS, Gardner, Kansas.

Crucikshank Top Crosses on Best American families. Sir Charming 4th at head of herd. Bulls of all ages—solid reds and roans—by Sir Charming 4th and by Godwin 115676 (the present sire at Linwood) for sale. A few young bulls of serviceable age for sale.

H. M. Satzler, Burlingame, Kansas, BREEDER OF.....

HEREFORD CATTLE, BER SHIRI SWINE, COTSWOLD SHEEP. STOCK FOR SALE.

CLOVER CLIFF FARM.

Registered Galloway Cattle. Also German Coach, Saddle, and Trotting-bred horses. World's Fair prize Oldenburg Coach stallion, Habbo, and the saddle stallion, Rosewood, a 16-hand, 1,100-pound son of Montrose, in service. Visitors always welcome. Address BLACKSHERE BROS., Elmdale, Chase County, Kansas.

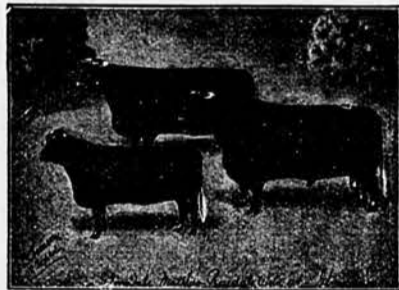
IDLEWILD SHORTHORNS

Herd Bulls, Godoy 115675, Royal Red 150066 Can offer 30 registered Shorthorn bulls from 12 to 30 months old. Also 30 head bulls from 6 to 12 months old. Well Worth to Examine Them. W. P. HARNED, Vermont, Cooper Co., Mo. On Missouri Pacific Railroad.

H. R. LITTLE, HOPE, DICKINSON CO., KANS., Breeds Only the Best Pure-bred

SHORTHORN CATTLE.

The herd numbers 135, headed by ROYAL CROWN 125698, a pure Crucikshank, assisted by Sharon Lavender 143002. For Sale just now 16 Bulls of serviceable age, and 12 Bull Calves. Farm 1 1/2 miles from town. Can ship on Mo. Pacific, R. L., or Santa Fe. Foundation stock selected from 3 of the great herds of Ohio.



GLENDALE SHORTHORNS, Ottawa, Kans. Leading Scotch and Scotch-topped American families compose the herd headed by the Crucikshank bull, Scotland's Charm 127244, by Imp. Lavender Lad, dam by Imp. Baron Crucikshank. Twenty bulls for sale. C. F. WOLFE & SON, Proprietors.

LOCKRIDGE STOCK FARM

GEO. CHANNON, Proprietor Hope, Dickinson County, Kansas BREEDER OF PURE-BRED SHORTHORN CATTLE, POLAND-CHINA SWINE, PLYMOUTH ROCK POULTRY.

FOR SALE: The young Shorthorn herd bull, Glendower 2d, a half brother to Bothwell's heifer, Strawberry, that sold at the Kansas City Sale for \$700. Will also sell a few young bulls and heifers. Now offer in Poland Chinas 40 spring gilts, bred or open, and 100 fall pigs. Also 200 Plymouth Rock cockerels. Prices very reasonable as feed is too scarce to carry so many over winter.

CATTLE.

POWELL'S HEREFORDS.

Sires in Service: JUDGE VICTOR 62246, ROYAL BOY 82820. Special Offering: Three very choice bull calves, extra large, growthy fellows in good flesh. W. S. POWELL, Moline, Elk Co. Kans.

SHEEP.

..AMERICAN..

Angora Goat Breeders ASSOCIATION

For all information as to registering, etc., address W. T. McINTIRE, Secretary, 227 Live Stock Exchange KANSAS CITY, MO

HORSES AND MULES.

OAKLAWN FARM

AS ALWAYS, VASTLY IN THE LEAD. PERCHERONS, FRENCH COACHERS, SHIRES.

ON HAND, HOME-BRED AND IMPORTED 270 STALLIONS, 235 MARES.

The greatest collection of stallions ever brought together. Our two large, recent importations for this year included the Principal Prize Winners at the WORLD'S EXPOSITION, PARIS, and at the Government Shows at Amiens and Mortagne, and the Tops, first choice, purchased from the leading studs of France and England. The superiority of the Oaklawn Percherons was also shown at the

INTERNATIONAL LIVE-STOCK EXPOSITION at Chicago, December, 1900, pronounced by press and public the greatest live stock exhibition ever seen, where Oaklawn's Exhibit was awarded Three 1st Prizes, three 2d Prizes, three 3d Prizes, two 4th Prizes and two 5th Prizes in the three stallion classes; Championship, stallion, any age; Championship, mare, any age; 1st and 2d Prizes for collection; \$100 Gold Medal, best group, five stallions; \$100 Gold Medal, best group, three mares. Catalog on application. Prices reasonable.

DUNHAM, FLETCHER & COLEMAN, WAYNE, DU PAGE CO., ILLINOIS.

Leavenworth County ...

JACK FARM.

Twenty-five Jacks and Jennets for sale; also a registered trotting-bred stallion, 16 1/4 hands high, weight 1,300 pounds. O. J. CORSON, Potter, Kansas

SNYDER BROTHERS, WINFIELD, KANSAS.

.....BREEDERS OF..... SHIRE, AND PERCHERON HORSES, SHORTHORN, AND POLLED DURHAM CATTLE, POLAND-CHINA SWINE. BREEDING STOCK FOR SALE.

LIVE STOCK AUCTIONEERS.

JAS. W. SPARKS LIVE STOCK AUCTIONEER Marshall, Mo. Have been, and am now, booked for the best sales of high-class stock held in America. Write me before claiming dates.

R. E. EDMONSON (late of Lexington, Ky.) and R. Tattersalls (of Chicago, limited), now located at 208 Shedley Building, Kansas City, Mo., offers his services as Live Stock Auctioneer. All the Herd and Stud books. Wire before fixing dates.

GEO. R. HUNGATE, The Reliable AUCTIONEER Son of A. J. Hungate, who spent 45 years as a prominent Auctioneer. I have sold more cattle during the past year than any man in Kansas. Sales made on the per cent plan. Correspondence solicited and promptly answered. Address, Sixth and Quincy Streets, Topeka, Kans.

LIVE-STOCK AUCTIONEER Col. J. N. Harshberger, LAWRENCE, KANS. Special attention given to selling all kinds of pedigree stock, also large sales of graded stock. Terms reasonable. Correspondence solicited. Mention KANSAS FARMER.



SUNNY SLOPE HEREFORDS.

155 HEAD FOR SALE—Consisting of the Imported herd bull, Sentinel, 7 2-year-old bulls, 73 bulls from 8 to 16 months old, 60 yearling heifers, and 10 cows. MY ANNUAL SALE—Will be held at Kansas City in connection with W. S. Van Natta, and Scott & March February 26 to March 1, 1901, when 100 head will be sold from the three herds at auction. C. A. STANNARD, - - - Emporia, Kansas.

SCOTT & MARCH, BREEDERS OF PURE BRED HEREFORDS, BELTON, CASS COUNTY, MO.

BULLS in service, HESIOD 29th 66304; Imp. RODERICK 80155; MONITOR 58975, EXPANSION 93403, FRISCOE 93674, FULTON ADAMS 11th 82721. HESIOD 29TH 66304. Twenty-five miles south of Kansas City on Frisco, Fort Scott & Memphis and K. C., P. & G. Railroads.



...GUDGELL & SIMPSON... INDEPENDENCE, MO., BREEDERS AND IMPORTERS OF.....

HEREFORDS.

One of the oldest and largest herds in America. ANXIETY 4th blood and type prevail. BOTH SEXES, IN LARGE OR SMALL LOTS ALWAYS FOR SALE.

VALLEY GROVE SHORTHORNS.

THE SCOTCH BRED BULLS Lord Mayor 112727, and Laird of Linwood 127149 Head of the Herd.

LORD MAYOR was by the Baron Veltor bull, Baron Lavender 2d, out of Imp. Lady of the Meadow and is one of the greatest breeding bulls of the age. Laird of Linwood was by Gallahad out of 11th Linwood Golden Drop. Lord Mayor heifers bred to Laird of Linwood for sale. Also breed Shetland ponies. Inspection invited. Correspondence solicited. A few young bulls sired by Lord Mayor for sale. Address

T. P. BABST, Proprietor, Dover, Shawnee Co., Kans.



PEARL SHORTHORNS.

HERD BULLS: BARON URY 2d 124970. LAFITTE 119915. I have 12 fine young butts, ranging from 5 to 20 months, both in solid red and red roans for sale. Three of these are exceptionally fine... C. W. TAYLOR, - - Pearl, Kansas.

GALLOWAYS.

Largest Herd of Registered Galloways in Kansas. Young bulls, cows, and heifers for sale. E. W. THRALL, Eureka, Kans.



Columbus Herefords

Herd headed by COLUMBUS 51875, Hesiod 17th 56467, and Weston Stamp 15th 108353. Columbus is the sire of the \$7,500 Dale, the \$5,050 Columbus 17th, the \$2,000 Columbus 12th, the \$1,250 Viola. Five of Columbus' get, of our breeding, sold for \$7,140 or an average per head of \$1,428. Young stock of both sexes for sale sired by Columbus, and Hesiod 17th. BENTON GABBERT & SON, Dearborn, Mo. Maple Leaf; Chicago, Rock Island & Pacific Railroads.

T. K. TOMSON & SONS, Proprietors of

ELDERLAWN HERD OF SHORTHORNS DOVER, SHAWNEE COUNTY, KANSAS.

GALLANT KNIGHT 124468 in service. Females are pure Scotch and Scotch-topped on the best American families. 100 head in herd. A choice lot of young stock for sale. Correspondence and inspection invited.

250 HIGH GRADE ANGORA DOES

All pure white, thin pendulent ears. Will sell very cheap if taken soon. W. T. McINTIRE, Live Stock Exchange, - - Kansas City, Mo.

### Characteristics and Needs of the Several Wheat Districts of the United States.

MARC A. CARLETON, U. S. DEPARTMENT OF AGRICULTURE.

From the standpoint of investigations so far made concerning the conditions of wheat environments and the adaptations of varieties in the United States, the country may be considered as divided into eight wheat districts, each possessing characteristics quite different from those of the others. In fact, in some cases they are as different from each other as though they lay in different continents. They are as follows: (1) The soft wheat district, including mainly the New England and Middle States; (2) the semi-hard winter wheat district, including the North Central States; (3) the southern wheat district, including the northern part of the Southern States; (4) the hard spring wheat district, including the Northern States of the plains; (5) the hard winter wheat district, including the Middle States of the Plains; (6) the durum wheat district, including a part of the Southern states of the Plains; (7) the irrigated wheat district, including in general the scattered portions of wheat area in the Rocky Mountain and Basin

tion of hard, glutinous wheats. Moreover, the climate is against their production, being too moist and cool in summer. Nevertheless in New York and Pennsylvania, by means of the plentiful application of fertilizers and the unusual attention paid to seed selection practiced in this region, a large amount of good wheat is annually grown in proportion to the entire area. Twenty-five or thirty years ago, when the area given to wheat culture in this country was much more limited than at present, and when the hard red wheats were not so popular, New York had a deservedly great reputation both for her wheat production and flour industry. And even at present, if there is a diminution of this reputation, it is not because of any actual decrease in wheat and flour production, but because of the overshadowing increase in districts more favorably conditioned or situated, though we should add to this the fact that there has been a corresponding change in the kind of wheat used for bread-making. The fact that so high a standard is maintained in the wheats of this region in the face of adverse natural conditions, is strong proof of the importance of intelligent wheat culture, particularly in respect to seed selection and the proper treat-

regions of the United States. The wheats grown are generally semihard, rather reddish in color, and either bald or bearded. Throughout this district, as well as over a large portion of the country, there has been a decided tendency during the last twenty years or more toward the use of harder red wheats and also of a larger proportion of winter compared with spring varieties. The increasing use of the harder wheats has been coincident with the advent of the roller-milling process, but not necessarily a forced result of the latter, as some have inferred. The two have worked together. The proportion of such wheats now grown is much larger than ten years ago. Especially is this true in Michigan, where special impetus has been given to such improvements through the efforts of Prof. R. C. Kedzie, assisted by the millers of the state. Similarly the area in which it is considered possible to grow winter wheats has been extended much farther northward, now including practically all of Michigan, nearly all of Illinois, and even a small portion of Wisconsin. Thus this group of states may now be properly called the semihard winter wheat district. These changes have been accomplished by the gradual introduction of hardier winter sorts,

soil is also generally not of the best for such purposes. Rust is always very bad, because of the constantly damp, warm climate. In spite of these difficulties there is no doubt that with sufficient effort the wheat industry might be very materially improved. Just recently there has been much interest awakened in the possibilities of successful wheat culture, particularly in Georgia and South Carolina. This increasing interest in the matter finally resulted in the calling together of a convention at Macon, Ga., in July, 1899, when it was unanimously decided that Georgia can very easily and should supply her own demands for wheat for bread-making. Many members of the convention gave very favorable testimony regarding their own experiences in wheat growing during the past year. Probably one of the greatest obstacles in the way of profitable wheat raising in portions of the South is the lack of good flouring mills, much of the grinding being at present performed by the most primitive of gristmills. With a continued increase in wheat acreage there will perhaps be a corresponding increase in the number of first-class mills constructed.

On account of the severe rust attacks which occur in this district it is



IMPORTED PERCHERON STALLION CASTELAR, 25043 (42688).

Winner first prize, World's Exposition, Paris, 1900. Winner first prize in class, and Championship, all ages, International Live Stock Exposition, Chicago, 1900. Property of Dunham, Fletcher & Coleman, Wayne, Du Page County, Illinois.

States; and (8) the white wheat district, including the larger part of the Pacific Coast States. Just as these districts differ from each other in their characteristics, so do all the particular needs of the wheat grower in each differ widely from those of other districts.

#### GENERAL NEEDS OF ALL THE DISTRICTS.

Before describing these districts separately, it will be well to note briefly two general needs common to all of them. These are (1) greater yielding power and (2) earlier maturity. In the writer's experience these are found to be ever present needs, not only in all our own states, but in all wheat countries.

#### SOFT WHEAT DISTRICT.

In this district are included approximately New York, Pennsylvania, New Jersey, Maryland, Delaware, and portions of Virginia, West Virginia, and eastern Kentucky; also such portions of New England as produce wheat to any considerable extent. The region is characterized on the whole by the production of rather soft wheats, containing a large amount proportionally of starch, though occasionally they incline to semihard. The color of the grain is usually yellowish white or amber, but sometimes quite reddish. The soil, especially if not heavily fertilized, does not possess the necessary amount of alkali, phosphate, and humified organic matter required for the produc-

ment of the soil. In some localities of this district the standard is considerably above what one would expect, while in some other districts it is far below what it should be.

In the most northern portions of this district spring sowing is almost entirely practiced, and there is a need for hardy winter sorts which will be able to extend the winter-wheat area farther northward. In some localities rust is occasionally very injurious, the black stem rust sometimes completely destroying the crop. Early maturing and rust resistant sorts are therefore desirable for escaping or overcoming the attacks of this parasite.

#### SUMMARY OF CONDITIONS AND NEEDS OF THE DISTRICT.

- (1) Chief varieties now grown: Fultz, Early Genesee Giant, Jones's Winter Fife, Red Wonder, Gold Coin, Fulcaster, Longberry, Mediterranean, Early Red Clawson, Blue Stem.
- (2) Average yield per acre, about 14½ bushels.
- (3) Needs of the grower: (a) Harder-grained, more glutinous varieties. (b) Hardier winter varieties for the most northern portions. (c) Earlier maturity. (d) Rust resistance.

#### SEMIHARD WINTER WHEAT DISTRICT.

In this district we may include Ohio, Indiana, Illinois, Michigan, and a small part of Wisconsin. It produces a wheat of medium quality, and on the whole is one of the most important cereal

which are at the same time usually harder and red grained. Nevertheless there has been little more than a beginning in these improvements, and there is still a demand for hard red wheats, and in the northern portion of the region for hardier winter varieties.

The black stem rust is sometimes very destructive in these states, particularly in the lower, moist, and timbered portions of Ohio, Indiana, and Michigan. Hence there is great demand also for rust resistant sorts.

#### SUMMARY OF CONDITIONS AND NEEDS OF THE DISTRICT.

- (1) Chief varieties now grown: Fultz, Rudy, Early Red Clawson, Poole, Valley, Nigger, Dawson's Golden Chaff.
- (2) Present average yield per acre, about 14 bushels.
- (3) Present needs of the district: (a) Hardiness of grain. (b) Rust resistance. (c) Hardy winter varieties.

#### SOUTHERN WHEAT DISTRICT.

In area this district includes the larger portion of Kentucky, Virginia, West Virginia, and North Carolina, all of Tennessee, and portions of South Carolina, Georgia, Alabama, Arkansas, and Missouri. The annual production of wheat is comparatively small, and is furnished principally by Kentucky, Missouri, Tennessee, and Virginia. In the greater portion of the region the combination of great rainfall with mild temperature is not conducive to the greatest success in wheat growing. The

highly desirable to grow early ripening and rust-resistant sorts. But there are really not many early maturing wheats grown in this country, and of the early foreign varieties already tested none have yet proved to be sufficiently hardy. Canning Downs, an early Australian sort, winterkilled even in so mild a region as Mississippi. However, there has not been a sufficient number of trials of such varieties, and the different experiments have not been often enough repeated to give reliable results. As to the matter of rust resistance, experiments made in Louisiana showed that hard red wheats, including a number of Russian origin, resisted rust the best. In Mississippi two Australian varieties, Beloturka and Defiance, were quite rust resistant, while varieties obtained from England rusted very badly.

Occasionally wheat is much injured in the northern portion of this region by late spring frosts. It is on such occasions that late-maturing wheats and late-sown crops may have the advantage, since those ripening early are likely to be caught by the frost just at blooming time and be prevented from "filling out," while the later ripening crops, blooming after the frost, escape such injury. It seems possible, however, to grow varieties that will resist the action of these frosts, and there-

(Continued on page 42.)









The Home Circle.

CHARITY.

Go, man, to thy brother, noble and proud, Now in sin's dark pollution and misery bowed, Go speak to him kindly, though he grovel in dust The angels will smile o'er an action so just.

-N. L. Hickok.

Glimpses in Cuba 200 Years Ago.

SANTIAGO DOD IN LOUISIANA PLANTER. The Royal ordinances for the government of the diminutive sugar plantations and other rural properties [of Cuba 200 years ago] were so quaint and indicative of the spirit of the early period of clericalism and "paternal" control, that they deserve a passing notice.

THE COCK, THE CAT, AND THE DOG.

The cock presupposed an accompaniment of hens, and was intended to promote an increase of his species at a time when the markets were never overstocked with eggs or fowls.

DISPENSERS OF THE LAW.

To insure compliance with the ordinances, the Alcades—there were at this epoch always two, one acting as a substitute—were obliged in turn, to make two yearly circuits of inspection.

THE PROPRIETOR MUST ANSWER.

The proprietor or the "mayoral" rep-

resenting him, after duly making the sign of the cross, was subjected to an interrogatory, as to whether "the roads of the jurisdiction were open as ordered by Royal justice."

Whether he had harbored any slave hiding from his owner, or any fugitive soldier—the slave being more important was given precedence—and if he had admitted vagrants and idlers, or knew of any such elsewhere;

Whether he had cognizance of the existence of any occult contraband goods, or of any one who had sold prohibited merchandise without municipal license, such as dry goods and rum;

Whether he knew or had heard of the commission of any public sin, or of any delinquents, violent deaths, quarrels, affrays, or spilling of blood.

EXTRAVAGANCE AND VICE IMPORTED.

These inquisitorial visits, although afterward perverted, like everything else in the unfortunate island, and made a new means of extortion, that finally led to their abolition, did during many years, much for good order, peace and morality.

COULD WED WITHOUT PARENTS' CONSENT.

It was not alone with a view to the increase of domestic animals that ordinances were promulgated. Such was Spain's interest in the early settlement of the island, that she also extended her maternal solicitude to the human species.

There is one other interesting feature of this epoch, otherwise so simple, primitive and in many respects so unsophisticated, in so much as it shows that the prevalent backwardness in all arts and trades was not so much due to poverty as to that innate spirit of retrogression, which is so characteristic of all Spain's colonial empires.

CONTRASTS IN COSTUMES.

A contemporary chronicler has left us detailed descriptions of the costly wardrobes of these Cuban colonists of two centuries ago—of their habiliments of silk, brocade and all the richest fabrics the looms of France and Spain could produce—of coats costing not infrequently the sum of \$150, equivalent to nearly double that amount at the present relative value of coin, and we may safely assume that the attire of the gentler sex was even more costly.

Nothing could well be more incongruous than the scenes presented by these semi-aboriginal Cuban towns on Sundays and other innumerable feast days that were marked in the church calendar with a double cross and for want of newspapers and almanacs duly announced from the belfry the preceding noon, by that excruciating clamor of the bells, that still tortures the ears of the unaccustomed stranger.

By day the alternately muddy or

dusty grass grown, unpaved streets, lined with habitations little better than those of the recently exterminated Indians, were enlivened by gay crowds thronging the middle of the primitive thoroughfare, for even the present narrow apology for sidewalks was as yet unthought of.

AFTER DARK.

After dark the scene changed. The gorgeously clad elite gathered at the homes of the wealthier residents, either to dance to amateur music from the guitar, upon floors of beaten mud, under roofs of bare palmleaf thatch, supported upon walls of unwhitened clay, in the dim light of tallow dips, or to feast at the rudest of tables, from metal or wooden plates, served from gourd dishes, often with spoons of like material, and drinking at best from silver rimmed cups, which were the pride of their possessor, while their poorer neighbors crowded about the large barred windows and ample doors, freely enjoying the scene and applauding the dancer when occasion offered.

PLENTY OF DISPLAY, LITTLE COMFORT.

This anomalous love of adornment limited exclusively to their attire, was not alone responsible for this singular vagary. It was in part due to another old and still dominant characteristic of the Spanish race. The absence of that instinctive desire for comfort as we understand it was so complete that no word to express our conception of it existed in their language until adopted directly from ours.

Some Utensils That Pay.

On many Kansas farms where up-to-date and expensive machinery is used for a short season and then put into the sheds to stand idle for months, the kitchen is poorly equipped with articles which would be used every day in the year; articles as inexpensive as they are useful.

A good meat chopper can be obtained for from \$1.25 to \$3.00 depending upon the capacity. For family use the small sizes answer every purpose. The machine screws to the kitchen table and is ready for use in a few seconds. All kinds of food may be chopped and the work is done more quickly and much more thoroughly than is possible with the old chopping bowl.

A double-boiler is used almost or quite as much as a food chopper and saves fully as much labor. Cereals

may be cooked in this without stirring, it is an ideal milk heater, and is convenient in the cooking of many foods. It will pay to buy a granite-ware double-boiler. The cost of this, also, depends upon the capacity, and the price ranges from fifty cents upwards.

We know of a few Kansas homes where a fork is the best article in the house with which to beat eggs. We are using an "egg flap" purchased three years ago at the "Temple of Economy" in Kansas City at a cost of 1 cent. The investment is not regretted.

Good granite ware for cooking spoons, pans, kettles, and so on, always pays and is more satisfactory in every way than earthen or iron utensils. Tools that make the work lighter and the working more rapid will pay in any household where time has value.

MARY WAUGH.

Stray Notes.

A small amount of sugar added to canned or dried corn when cooking will improve the flavor.

A little grated cheese added to scrambled eggs just before removing from the stove makes an excellent variation from plain eggs. When grated, the cheese will melt in one minute's cooking. Stir through the egg mixture.

Instead of warming up left over mashed potatoes, mix with salad dressing and shape into small cakes. Slice a lemon thinly and lay one slice of lemon on each cake. Serve on a lettuce leaf, or on a plate garnished with parsley or celery leaves. Round slices of hard cooked eggs are a pretty garnish for potato salads.

M. W.

The Obstacle.

Olddamme: "Young man, have an ideal. Have an ideal, I say, and hug it to your bosom at all times and places."

Youngdogge: "But she won't let me."—Harper's Baazar.

Modern Inference.

Guide (referring to Egyptian pyramids)—It took hundreds of years to build them. O'Brien (the wealthy contractor)—Thin it wor a government job, eh?—Tid-Bits.

A Tragedy.

She—If you had no idea when we could get married why did you propose to me? He—To tell the truth, darling, I had no idea you would accept me.—Life.

Catarrh Cannot be Cured

with LOCAL APPLICATIONS, as they cannot reach the seat of the disease. Catarrh is a blood or constitutional disease, and in order to cure it you must take internal remedies. Hall's Catarrh Cure is taken internally and acts directly on the blood and mucous surfaces. Hall's Catarrh Cure is not a quack medicine. It was prescribed by one of the best physicians in this country for years, and is a regular prescription. It is composed of the best tonics known, combined with the best blood purifiers, acting directly on the mucous surfaces. The perfect combination of the two ingredients is what produces such wonderful results in curing Catarrh. Send for testimonials, free.

F. J. CHENEY & Co., Props., Toledo, O. Sold by all druggists, price 75c. Hall's Family Pills are the best.

Willing to Help.

Ernest (boldly)—If I thought no one was looking I would kiss you. Dora (shyly)—Shall I close my eyes?—Puck.

Health for 10c. Cascarets make the bowels and kidneys act naturally, destroy microbes, cure headache, biliousness, and constipation. All druggists.

No Money in Advance

Our elegant New Jewel Drop-head Sewing Machine possessing all the latest improvements, high quality and thorough workmanship. Shipped direct at \$12.50, the lowest price ever known. 30 days' free trial. Money refunded if not as represented. Guaranteed 20 years. All attachments free. 125,000 sold. \$40.00 Arlington for... \$14.50 \$50.00 " " " \$17.00 \$60.00 Kenwood " " \$21.50 Other Machines at \$8.00, \$9.00 and \$10.50 Large illustrated catalogue and testimonials Free. CASH BUYERS' UNION, 158-164 W. VanBuren St., B-64, Chicago

Mothers! Mothers!! Mothers!!! MRS. WINSLOW'S SOOTHING SYRUP has been used for over FIFTY YEARS by MILLIONS OF MOTHERS for their CHILDREN while TEETHING, with PERFECT SUCCESS. IT SOOTHES THE CHILD, SOFTENS THE GUMS, ALLAYS ALL PAIN, CURES WIND COLIC, and is the best remedy for DIARRHOEA. Sold by druggists in every part of the world. Be sure and ask for "Mrs. Winslow's Soothing Syrup," and take no other kind. Twenty-five cents a bottle.



# The Young Folks.

## A LIFE LESSON.

There! little girl, don't cry!  
They have broken your doll, I know!  
And your tea-set blue  
And your playhouse, too.  
Are things of long ago;  
But childish troubles will soon pass by:  
There! little girl, don't cry!

There! little girl, don't cry!  
They have broken your slate, I know;  
And the glad, wild ways  
Of your schoolgirl days  
Are things of long ago;  
But life and love will soon come by:  
There! little girl, don't cry!

There! little girl, don't cry!  
They have broken your heart, I know;  
And the rainbow gleams  
Of your youthful dreams  
Are things of long ago;  
But heaven holds all for which you sigh:  
There! little girl, don't cry!  
—James Whitcomb Riley.

### Birds in the Winter.

When the summer is past and the young birds have been safely reared to maturity, the great tide of bird migration begins to set backward from the northern woods. This is the time of year when frugal nature forgets her economies and is in a bounteous mood. Through the long summer days and sunny autumn, while insects and caterpillars furnish ample repasts for her feathered children, she was accumulating treasures of seeds, grain and berries against the return of the wanderers, to whom she gave such stinted largess in the spring. Nearly every tree, shrub and vine holds a store of food. All the gay meadow possesses of the past season—grass, sedge and flaunting flowers, even coarse and unsightly weeds—are heavy with harvest. This is the season when birds need a generous diet. They are thin and worn with the care of young and the moulting and the renewal of their plumage. Why wonder if they give themselves up to banqueting?

At this time families are broken up. The various tribes gather in flocks, forgetting their song, and proceed leisurely to literally eat their way through to the south. The insect eaters pass through at a comparatively early date, but the seed and berry eaters remain until driven southward by the cold. Numerous as these are, it is impossible for them to exhaust the seeds, but by the time the last travelers have departed most of the berries are consumed. All the low-growing varieties of cornus—white, black and blue berries—are swept clean. One morning you may find a tree of cornus florida literally alive with robins and golden-winged woodpeckers, and an hour later not a berry of its shining red coral will be left.

The ash trees bear a wealth of winged seeds fashioned like tiny Indian paddles. These hold out for perhaps a month, but even they gradually disappear, until naught is left of summer's garnering but a shower of empty seed cases beneath the trees. Successive flocks of hungry birds hold high revels here. One day it will be the pine finches, on another the chattering thistle birds, and again the redpoll linnets, their rosy plumage gleaming like satin in the morning sun.

Out in the open fields and roadways numerous flocks of the sparrow family find rich harvesting. Great patches of pigweed and climbing false buckwheat form tangled coverts where security and plenty are assured. A quiet approach to one of these spots will afford a surprise. Not a feather is in sight, but beneath you can hear the birds feeding, the crocking of seeds and the clicking of innumerable little bills swelling to quite a volume of sound. Shake the thicket and out rush the birds with a great whirring of wings. Tree sparrows, white throats, song and swamp sparrows, gold-finches and juncos are there, the twinkling white feathers of the latter showing conspicuously as they pitch about in their peculiar flight. For a moment they appear like a torrent of leaves swept before a November gale, and then disappear in the next tangle of weeds.

For the most part the birds feed silently, but the tree sparrows always sing light little notes, sweet and tinkling. When November has passed most of the summer visitors and birds of

passage have departed for the south, that land of plenty and perpetual summer. Were it not for this wise provision of nature the food supply, great as it is, would not hold out until the coming of another warm season.

Under the working of this migratory impulse there is comparatively plenty left for the winter residents. Pines and hemlocks hold within each scale of their cones the tiny nuts which the hooked mandibles of those erratic wanderers, the crossbills, will open later. The waxwing likewise has his own special preserves. There are the blue green berries of the cedar and the frozen fruits of orchards and wild apple trees, which grow in thickets and hedge rows. The waxwing is the cultured gentleman of his tribe, quiet of tone, gentle and refined in manners, never quarreling over his food.

A friend assures me he has seen a row of these birds sitting on a bough and systematically passing a frozen crabapple up and down the line, each one taking a bite and passing it on to the next, just as convivial souls would send around a bottle. That was in the hungry time of the year, too, when the instinct of self-preservation might well engender selfishness.

The fruit of the sumac and bitter-sweet seem to be reserved for necessity for only late in the spring, when food is scarce, have I seen any birds attempt to eat it; but the white berries of the poison ivy are acceptable to many of the finches. Almost anything will do for the jays and crows. They are omnivorous, taking anything they can get, but the grubs and larvae imbedded in the trunks and limbs of trees furnish food for the woodpeckers. Their stout bills are able to chisel through almost any intervening bark and wood to reach them. Some species eat ants and crickets, and often disappoint the entomologist by opening the cases of chrysalids and drawing out their contents. Many a time have I struggled through a tangled mass of osier or cat brier for a promising cocoon, only to find that the enterprising woodpecker had been ahead of me.

The white, wax-coated fruit of the bay-berry, *Myrica cerifera*, is the favorite food of the yellow-rump, or myrtle bird, and wherever there is an abundant crop of those berries there the myrtle birds may be found in great abundance. The myrtle bird is the only one of the large tribe of warblers that can endure the cold of our winters.

The others of this numerous family wend their flight southward early in the season, and many cross the gulf, going as far beyond the equator as the Argentine Republic. With the exception of kinglets and hummingbirds, these are the smallest of our birds. Think of those tiny, slender wings crossing that vast extent of country twice a year!

The myrtle bird, however, defies the cold of a northern winter, trusting to the bayberries, which furnish another hardy set of adventurers on these harsh shores with a light to cheer the cold gloom of a New England winter. In the days of the Puritan the wax-coated fruit of the bayberry was gathered and boiled in water. The wax was then skimmed off and run into candles. These must have burned like incense, as every part of the bush is aromatic.

When the snows lie deep and heavy on the fields the weeds and grasses hold above them an abundance of food for the seed eaters. One of the pleasant sights in winter is the imprint of many little feet among the scattered seeds beneath these clumps. The bird lover feels glad when he sees these signs that for one more morning at least the hunger of the birds has been satisfied. Few things are more appealing than the trust of a bird for the continuance of its food. One winter, during a cold and driving storm, the hunger-driven birds overcame their timidity sufficiently to come in at the open kitchen door for the food which we scattered near the threshold, and after satisfying their need they flew away to some unknown shelter. The next morning we arose considerably later, and on the freshly-fallen snow of the porch was evidence that the birds had come again seeking food. They had alighted on the steps, hopped along half the length of the porch, and the trampled footmarks at the kitchen door showed that they had waited patiently for some time, expecting it to open. It has been my custom for several winters to hang up bones and bits of gristly meat in some trees before my window to attract the birds. I am rewarded by the sight of woodpeckers, nuthatches, chickadees and brown creepers coming almost daily to nibble on these tidbits.

Toward the end of February the food supply of the birds is greatly dimin-

ished and the demand increased by the first arrivals from the advance rank of the spring migration. Then if a heavy fall of snow occurs, ending in what may be called a glacial period for their world, the birds are in a sad plight. The insect eaters are a little better off than the seed eaters, for even with wet, clinging snows and ice-encrusted forests one side of the trees is usually exposed, but by this time most of the seeds from weeds and grasses have been beaten to the ground by the fierce winter storms and lie beyond reach until a thaw uncovers them. At such times very shy birds are sometimes driven by hunger to seek refuge around barns and dwellings.

Two springs ago, after a late March snowfall, a fox sparrow made a flibustering expedition among the English residents of my back dooryard. It is frequently asserted that the English sparrow will wage successful warfare on any of our native birds, but the fox sparrow's visit disproved it. The latter is a shy and a retiring bird, even in his native thickets, and his stay with us in the spring is a brief one of two or three weeks. When I first heard his feeble "seep" in my garden, he was sitting on a lilac bush, with drooping storm-worn plumage, in a dejected and humble attitude. But never did prosperity work a greater alteration of character. He soon developed the most despotic manners, and, finding the English sparrows gave way to him, he allowed them to take nothing he coveted. I could see even by the way he hopped how his arrogance grew daily. His poor subjects might well have asked "Upon what meat does this, our little Caesar, feed, that he hath grown so great?" For a brief period he was an interesting study, but with the melting snows he vanished from sight, to resume, no doubt, his onward journey to the summer land of his desire.—Sarah T. Woodworth, *A Recreation.*

### The Size of the World.

The earth has been measured by the United States Government, or rather by the Geodetic Survey Department, and some figures have been made public. Thus it is stated that the equatorial diameter of the earth is 7,926 miles and the polar diameter 7,899 miles, or that the diameter of the world is 27 miles less when measured from pole to pole than when measured through the equator. The iconoclastic hand of the investigator has thus disproven another fallacy which had been firmly implanted in the mind during the school days. Then the teachers found the simple orange an excellent example of what the shape of the earth was supposed to be, showing as it did to the eye a visible flattening at the top and bottom, which were supposed to represent the poles. Science has proven now that the flattening is so slight as not to be visible to the eye, even if expressed on the largest sized globes. It has taken Uncle Sam thirty years to weigh and measure the earth, and has cost over half a million dollars. As the poles have never been reached it is readily seen that no actual measurements have been made, and it is interesting to note the methods by which the Governmental scientists made these measurements.

As a basis for reaching the diameter of the earth the United States survey cast the longest straight line ever measured by instruments. It was laid along the thirty-ninth parallel of latitude, from a point near Cape May light, at the southern tip of New Jersey, straight westward to Point Arena, in Mendocino county, California. This line was begun in 1871, and only recently was the last triangle laid, showing that the absolute distance between Cape May light and Point Arena is 2,625.6 miles. With the distance between these established, the miles downward to the earth's axis were easy of computation.

The exquisite care with which the calculations were done is shown by the following facts: By actually laying bars of metal end to end the surveyors, in the course of this stupendous measurement, marked off the base lines essential to their triangulation work. The temperature of each bar was carefully measured by thermometers beside, and its effect upon the length of the bar was taken into strict account. A single pair of these complicated bars cost \$1,500. Stretched across the country, they were not rested upon the ground, but upon tripods carefully leveled. One style of measuring bar utilized in this delicate work was carried in a trough filled with melting ice, and was thus kept at the freezing point. Being always at the same temperature, its length never varied. And the net result of the investiga-

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tion is to show that Mother Earth is somewhat broader than she is tall. Let us suppose that there are two tunnels, dug in precisely straight lines, one joining the North and South poles and the other connecting two directly opposite points upon the equator. The latter tunnel would be 26.8 miles longer than the former.—Cincinnati Times.

### About the Buffalo.

According to an article in Nature, a curious census has just been taken by Mr. Mark Sullivan. It was for the purpose of determining the number of living buffalo on the North American continent, and the result as given by Mr. Sullivan is as follows: Bison in captivity, 684; running wild in British Columbia, the Yellowstone park and a few other places, 340; total 1,024.

### Peace After War.

"You say you never quarrel with your husband?"

"Never. You see we were members of the same choir before we married, and we got all over that by the time we were man and wife."—Yonkers Statesman.

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Established in 1863.

Published every Thursday by the KANSAS FARMER CO., : : TOPEKA, KANSAS.

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NOTICE EXTRAORDINARY. BLOCKS OF TWO.

The regular subscription price for the KANSAS FARMER is one dollar a year. That it is worth the money is attested by the fact that thousands have for many years been paying the price and found it profitable. But the publishers have determined to make it possible to secure the paper at half price. While the subscription price will remain at one dollar a year and no single subscription will be entered for less than this price, every old subscriber is authorized to send his own renewal for one year and one new subscription for one year with one dollar to pay for both. In like manner two new subscribers will be entered, both for one year for one dollar. Come, let us immediately double the circulation of the "old reliable" KANSAS FARMER. Address, Kansas Farmer Company, Topeka, Kans.

We want a good reliable man or woman in every county to act as local agent for the KANSAS FARMER. We offer a good proposition to the right parties. In answering please give some one as reference and also state how much time each week you can give to the work. Address THE KANSAS FARMER, Topeka, Kansas.

The ninth annual meeting of the Dorset Horn Sheep Breeders' Association of America will be held at Pittsburg, Pa., on Tuesday, January 15, 1901.

P. D. Armour, of Chicago, the great meat packer, died at his home in Chicago last Sunday. Mr. Armour did much to organize the packing industry and amassed an immense fortune. He was a liberal giver as well as rapid money maker.

It was intended to publish in this number of the KANSAS FARMER the full proceedings of the Kansas State Horticultural Society. The illness of the official stenographer of the society made it impossible for her to write out the discussions, so that it has become necessary to hold the report over until next week.

The caucus of the Republican members of the Kansas legislature has agreed upon Hon. J. R. Burton, of Abilene, for United States Senator to succeed Hon. Lucien Baker, of Leavenworth. Since the present legislature has a strong Republican majority, the caucus nomination assures the election of Mr. Burton.

The Kansas Improved Stock Breeders' Association, the Kansas State Dairy Association, and the Kansas State Board of Agriculture, all in annual session at Topeka this week, to say nothing of the convening of the legislature, make life sufficiently varied at the capital city. Full reports of the proceedings of the three meetings concerned with farming will appear in the KANSAS FARMER in due course.

E. A. Burnett, professor of animal husbandry in the University of Ne-

braska and Agricultural Experiment Station, has written to the Kansas State Board of Agriculture an urgent request to be supplied with 150 copies of the board's Eleventh Biennial Report, for the use of students in the school of agriculture. Prof. Burnett in his letter, says: "I fear that such a request is imposing upon generosity, even if it is possible to grant the same, but we would be willing to incur some expense in securing this volume for our students, as it contains more information relative to the questions of live-stock and meat-production than any other volume I am able to secure. If possible to grant this request, would it be possible to secure an equal number of copies for the same purpose of your quarterly reports upon 'Pork-Production' and 'The Beef Steer'?"

WHAT OF A HUNDRED YEARS?

The populations of most countries are increasing. In some the rate of increase is very great while in others it is very small. The retrospect of the century just gone shows that the domination of the world is rapidly passing to peoples of European lineage. Indeed, in the determination of the course of events of world-wide importance, little consideration is given to the views of any people which has not an anchorage in Europe either in present holding or in ancestry. The scepter of influence of these European nations is far from equality in potency. The developments of the century have been diverse. At its beginning the United States had small influence in international affairs. With a population of 5,308,000 in this country against 15,669,000 in the United Kingdom of Great Britain and Ireland, 27,349,000 in France, and 22,000,000 in Germany, and other powers correspondingly potent, all the world outside of North America might be carved without much reference to American ideas or interests.

It is interesting to note the populations of the several European countries at the beginning of the century and now, as compiled by Henry Clews:

Table with 3 columns: Country, 1800, and Present. Includes United Kingdom, France, Germany, Russia, Austria-Hungary, Italy, Spain, Portugal, Belgium, Holland, Sweden, Norway, Denmark, Switzerland.

The United States whose people are nearly all of European origin, makes population showings as follows, according to the estimates of the Treasury Department:

Table with 3 columns: Country, 1800, and Present. Includes United States.

The changes in national influence have during the closing years of the century shown even greater disparity than the changes in population. These changes have been entirely favorable to the United States.

What another century may bring ticians are not averse to assuming that the population of the United States will double in about 30 years. If this shall be so, then 1931 should find us 144,160,000 strong. Doubling this for the next 30 years, or allowing that the increase will be somewhat retarded and that the last doubling will not occur before the end of the century our descendants should look into the twenty-first century with gladness or woe depicted upon 576,640,000 faces.

Should current rates of increase be continued in other parts of the world a complete revision of the earth's production of food will be necessary long before the close of the century to prevent universal famine. At present the people of Europe are drawing heavily upon the United States for bread, meat, and clothing materials. With 500,000,000 more people to feed and clothe than now, how much can this country spare to Europe, and what will be the price required for what does go? Verily the problems that confront the new century are as great as the world has ever had to solve. Perhaps the strife going on for possession of Southern Africa may contain a suggestion as to the solution that will be proposed by some people. In times past earth's belligerent children have settled all great questions by the sword. The leading nations are inclined to regard war as the final arbiter. By this court the dominion seems now to be decreed to the armed camps of Russia, Germany, Great Britain and the United States, with respectful consideration for Japan. Nations which held places of prime importance 100 years ago are

now almost lost to view. Some have predicted that before the next 100 years shall be made into history the powers which will determine great international questions will be reduced to two—Russia and the United States. The figures of the last 100 years lend plausibility to this view.

NOTABLE PLANT IMPROVEMENT.

The successes achieved in the improvement of the sugar beet by processes of plant breeding have stimulated attempts to improve other plants by similar processes. Not many years ago it was discovered that tropical sugar cane produces seed. Prior to this discovery all reproduction of cane depended upon planting canes. These grow at the joints. This process is much like layering shrubs or vines. There is very little variation in succeeding generations of plants produced in this way. But the canes produced from seeds vary in a manner similar to that of trees produced from seeds of grafted stock.

The cane sugar growers have been diligent in taking advantage of this variability and have carefully selected such seedlings as promised to develop valuable characteristics. It has been found necessary to propagate these seedlings by planting the canes for several years before it can be determined what will be the exact character of the fully developed cane. While this has made the experimental work rather tedious, it has added no insurmountable difficulty.

With commendable zeal the Louisiana Experiment Station, encouraged by the Louisiana sugar planters, has addressed itself to the task of improving sugar cane. The latest reports show that gratifying success has resulted from these well directed efforts. Since this experience with cane is a fair example of what may be expected with other useful plants, a brief review will be useful.

The seedling in question seems to have originated at the botanical gardens at Georgetown, Demerara, and was there known as Seedling D. No. 95. From this botanical garden it was obtained by Dr. Stubbs of the Louisiana Experiment Station. In 1897 a few canes of this seedling were obtained from Dr. Stubbs and planted in the garden at Helvetia Plantation, in St. James Parish, Louisiana, and carefully nursed. The resulting crop furnished stalks enough to plant nearly twenty for one in the succeeding fall, and, with careful handling, the quantity of canes from this beginning proved enough to plant in the fall of 1899 an area of 9.88 acres.

The growth of this cane was on a parity with that of the other canes which constitute the crop of the plantation, and it was not until the resulting damage from a gale on September 8 began to be estimated that it became apparent that the seedling canes were enabled to resist the effects of wind and rain better than the other canes on the place. The other canes of good growth were badly blown about by that storm while not a single stalk of the new red cane was injured.

On the 12th of December the crop on the 9.88 acres was cut and ground immediately, and the following data obtained:

Area 9.88 acres, total tonnage 359 tons and 1,480 pounds. Tons per acre, 36.5.

Total first sugar weighed 50,396 pounds.

Second sugar (estimated) 10,000 pounds. Total first and second sugar, 60,396 pounds.

First sugar per ton of cane, 140 pounds.

Second sugar per ton of cane, 28 pounds.

Total sugar from ton of cane, 168 pounds.

Total first and second sugar per acre, 6,214 pounds.

These figures show an average per ton of about 25 pounds more sugar than was obtained at the same time from the other canes ground on this plantation. The increase per acre is above 900 pounds of sugar. This result is sufficiently gratifying to induce a continuance of the work of improvement.

Opportunities in no wise inferior to those which gave these results are to be found with every useful plant grown on the farm. The most hopeful field open to the experiment stations lies almost untouched.

English Idioms.

Ben (reading)—So he slipped on his coat and went down stairs.

Len—Did he hurt himself much?—Yale Record.

Characteristics and Needs of the Several Wheat Districts of the United States.

(Continued from page 35.)

fore varieties hardy in this respect are desirable.

The wheats at present grown in the southern wheat district are either soft or semihard, and usually amber or reddish in color. They are either bearded, as in the case of the Fulcaster, or beardless, of which the Fultz and May wheats are examples. In Arkansas and the Carolinas, Nicaragua wheat, a durum variety, is grown somewhat, but to no great extent as yet. Wheat from the Southern States is always more likely to be infested with weevil than that from other districts, and occasionally much annoyance as well as injury to the grain results from this cause. Nicaragua and the hard red wheats are more resistant to weevil than are the soft wheats.

SUMMARY OF CONDITIONS AND NEEDS OF THE DISTRICT.

(1) Principal varieties now grown: Fultz, Fulcaster, Red May, Currell's Prolific, Rice, Everett's High Grade, Boughton, Purple Straw.

(2) Present average yield per acre, about 9 2/3 bushels.

(3) Needs of the grower: (a) Rust resistance. (b) Early maturity. (c) Resistance to late spring frosts. (d) Stiffness of straw.

HARD SPRING WHEAT DISTRICT.

The hard spring wheat area comprises the states of Minnesota, North Dakota, South Dakota, the larger part of Wisconsin, portions of Iowa and Nebraska, and small portions of Montana and Colorado. In this district, because of the rich, black soil and dry, hot summers, there is grown the highest grade of spring wheat in the world, excepting the spring varieties of the middle Volga region in Russia, which are very similar.

Two general types of wheat prevail throughout this district—the Velvet Blue Stem and the Fife. A large portion of the farmers in this region know no wheat which does not belong to one of these types. The craft of the Velvet Blue Stem is covered rather closely with small hairs, and the plants are bluish gray near harvest time. In both types the heads are beardless and the grains are medium or small, hard, and red. There are several strains or varieties of each type. The gluten contents of these wheats is comparatively very large, and especially of that quality which gives great lightness in bread making.

The average annual wheat production of this district is larger than that of any other similar area in the world, and is about 30 per cent of the entire production of the United States. The average yield per acre, however, is not very large—certainly far below what it might be. Almost everywhere the self-binder is used in harvesting the grain, and in some localities the farms given entirely to wheat culture cover many thousand acres. On these bonanza farms 50 to 100 self-binding harvesters are sometimes at work at the same time. The large size of the farms is one of the worst features connected with wheat growing in the Northwest. From this cause not enough attention is given to details of the work. Operations delegated to the best of foremen and other employees are never so carefully performed as when done under the direct scrutiny of the man who owns the farm, and whose interests are therefore at stake. Little things that are of importance when summed up are overlooked. The tillage is not thoroughly accomplished, weeds are not kept down, there is more or less waste of land, and the grain is allowed to degenerate in quality.

The needs of the grower in this district are not so great as in some others, though there is much to be desired. In the northern portion earliness of maturity is needed to enable the wheat to escape the early autumn frosts which sometimes catch the crop before harvest, while in the southern portion chinch-bug depredations and rust attacks might often be avoided through possession of the same quality. A combination of earliness and rust resistance in the same variety would be especially desirable. The average yield could be made very much larger, as already stated, but this is a matter depending fully as much on methods of culture as on the improvement of varieties. Proper seed selection, however, should be rigidly practiced. The establishment of hardy winter varieties in place of the spring varieties now grown would no doubt be an improvement of the utmost value in Iowa, Nebraska, and portions of Wisconsin, and perhaps a small part of Minnesota. This border is now the battle ground between winter and spring varieties, and it should

be the constant aim to carry the line farther to the north, thus increasing more and more the winter-wheat area.

SUMMARY OF CONDITIONS AND NEEDS OF THE DISTRICT.

(1) Principal varieties at present grown: Saskatchewan Fife, Scotch Fife, Powers Fife, Haynes's Blue Stem, Bolton's Blue Stem, Wellman's Fife.

(2) Average yield per acre, about 13 bushels.

(3) Needs of the grower: (a) Early maturity. (b) Rust resistance. (c) Hardy winter varieties. (u) Drought resistance.

HARD WINTER WHEAT DISTRICT.

In this district is comprised approximately the middle states of the plains, including Kansas, a large part of Missouri, portions of Iowa and Nebraska, and the larger part of Oklahoma.

The wheats of this district have slender, stiff stems, narrow, compact heads, usually bearded, and medium or small, hard, red grains.

Such improvements are after all but fairly begun, and there is yet great demand for hard-grained sorts and varieties that will resist the winters of Iowa and Nebraska.

Early maturity is of importance in this district in order to allow an escape from the worst effects of the drought in the western portion and from the rust in the eastern portion.

Early maturity is of importance in this district in order to allow an escape from the worst effects of the drought in the western portion and from the rust in the eastern portion.

SUMMARY OF CONDITIONS AND NEEDS OF THE DISTRICT.

(1) Chief varieties at present grown: Turkey, Fulcaster, May, Zimmerman, Fultz.

(2) Average yield per acre, about 12% bushels.

(3) Needs of the grower: (a) Hardy winter varieties. (b) Drought resistance. (c) Early maturity.

DURUM WHEAT DISTRICT.

The area contained in this district is comparatively small and includes a large part of north-central Texas, the southwestern portion of Oklahoma, and a small portion of the southwest corner of Kansas.

indicated on the map, as the particular portion is not yet definitely outlined. Some of this region (southwestern Oklahoma) has only recently been opened to settlement.

These durum wheats grow rapidly, are tall, and have wide leaves with a harsh surface, and large heavy-bearded heads, compactly formed.

In central and southwestern Texas rust is very destructive, so much so that wheat culture has been completely abandoned in many places on account of it.

Such improvements are after all but fairly begun, and there is yet great demand for hard-grained sorts and varieties that will resist the winters of Iowa and Nebraska.

SUMMARY OF CONDITIONS AND NEEDS OF THE DISTRICT.

(1) Chief varieties at present grown: Mediterranean, Nicaragua, Fulcaster, Turkey.

(2) Average yield per acre, 11 1/2 bushels.

(3) Needs of the grower: (a) Macaroni varieties. (b) Drought resistance. (c) Rust resistance. (d) Early maturity.

(To be continued.)

A NEW FEATURE.

The attention of our readers is called to a new feature in the KANSAS FARMER this week, namely, "Transfers of Pedigreed Stock." So much interest has been taken in our reports of public sales of pure bred stock that we feel that the great volume of private sales has been overlooked.

In sending the information give the name, breed, sex, and registered number of the animal bought or sold, as well as the name and address of buyer and seller.

sire's name and number. If the animal is named and not recorded, then state the volume of the record to which he is eligible if recorded.

The Apiary.

Conducted by A. H. Duff, Larned, Kans., to whom all inquiries concerning this department should be addressed.

The Apiary in Mid-Winter.

About the only attention that bees require now is to let them strictly alone. See that no stock gets near the hives and that the apiary is in perfect solitude.

Bees, of course, are active during a warm day, and if warm enough, will come out and take a flight. This is a good thing for them, as by frequent flights during winter they keep in the best of health.

When the right time comes do not put it off until to-morrow, but do the work that day. In earlier days the apiarist, or person who kept bees, was usually termed a lazy person, and adopted beekeeping because the bees work for him for nothing.

On inspection in early spring thus, two important things to first look after are, first to see if a queen is present in the hive and in evidence of usefulness, and to look for brood in the combs.

If a colony is found to have lost their queen it may be united with another at this time if the weather is very fine, but it is usually better to just close up the hive and let them remain so until nearer the opening of spring.

A Pleasant Duty.

Mrs. Jones—Don't trouble yourself to see me to the door, Mrs. Smith. Mrs. Smith—No trouble; quite a pleasure, I assure you.—Tit-Bits.

Special Club List

In order that we may save our regular subscribers some money, and at the same time supply the very best newspapers and magazines, we have selected a few representative journals, such as are most in demand, which we offer at a very low combination rate.

Table with 2 columns: Magazine Name, Regular Price, Clubbed with Farmer Price. Lists various publications like Ainslee's Magazine, American Agriculturist, etc.

Standard Agricultural Books in Club With the Kansas Farmer One Year.

Table with 2 columns: Book Name, Price. Lists books like A B C of Bee Culture, American Dairying, etc.

We will send any of the above books postpaid at publisher's prices. If two or more are ordered a discount of 10 per cent will be given.

When writing advertisers mention this paper.

**Horticulture.**

**Seasonable Hints.**

EDITOR KANSAS FARMER:—Much has been written about fall planting and spring planting, about the planting of large trees and small ones, about pruning, grafting and the general management of the tree, shrub, or flower above ground. What about the root growth beneath the ground? We are taught many things about plant life, but of the earth and its general conditions we know very little. All trees require air and moisture for their roots. Some trees are capable of adapting themselves to almost any kind of soil and do fairly well. Notably standard apple, black locust, catalpa and others. Yet we find each of the above prefers some given location and soil. The cypress of the lower Mississippi valley loves a moist or wet soil and could not be expected to grow on the prairies of Kansas.

Successful gardeners of the old world who grow azaleas and rhododendrons would not think of planting in a stiff clay soil. Great pains are taken as to the condition of the soil, because that has more to do with the success of the plants than any other one thing. If the grower wanted these plants to succeed he would not want my soil, which is limestone, and it would be useless to undertake to grow such plants, but he digs out the uncongenial soil and replaces it with an open, porous, spongy soil. Thus he overcomes the unnatural conditions, so that he may enjoy the beauty of rare flowers. Stiff, waxy soil may be greatly benefited by an application of broken stone gravel and top dressing of well rotted manure. We may increase the beauty and fruitfulness of our trees by giving them some attention in the way of mulching and so forth. I find late summer cultivation to be a wonderful help to growing trees or shrubs. As a rule we have plenty of moisture up to about July 4, when the unfavorable season causes many trees to perish. Take the planting of evergreens—I believe 95 per cent of all such trees planted in Kansas die, while as a matter of fact I find no trouble to make 90 per cent of them grow. The same is true of other trees and shrubs. Winter cultivation will help the growth of all forest trees. Such work could be attended to while general farm work is not so great. For single trees a spade is a useful instrument. Dig the ground roughly, leaving until spring. The action of the frost is just what the soil needs.

Do not expect any soil to grow too many crops. I have seen people who planted a small city lot full of cottonwoods, and then expected to grow a crop of flowers, shrubs, grass and weeds when the strong growing trees required all the strength of the land. Another illustration: How much corn can a farmer grow within 20 feet of a large hedge fence? The strength of the soil is limited. If any given crops is crowded it must of necessity be stunted, and should the crop be a mixed one, one form of plant life will surely rob its neighbor. GEO. W. TINCHER. Topeka, Kans., Dec. 12, 1900.

**Veranda Climbers.**

PROF. E. A. POPEHOE KANSAS EXPERIMENT STATION.

The genus Clematis comprises some climbers that recommend themselves both by neat growth and by a profusion of rich and often fragrant bloom. The range in these respects is sufficient to meet most demands of plants suitable for training to veranda pillars, as well as for screens to clothe unsightly walls or to hide other undesirable features in the view. The Kansas Experiment Station has had the more important plants of this group on trial for several years and the following notes upon the behavior of some of them in this locality are presented as of interest to growers.

Clematis Jackmani, a hybrid form, with reasonable care is fairly hardy and satisfactory. Its flowers are four to six rayed, of a rich velvety purple, and when well grown measure four to six inches across. They are produced abundantly upon green wood of the season's growth, either from buds on old wood or from the crown of the plant after the old wood is killed back by the winter. It is best grown with an

eastern or northern exposure, and wherever placed should be given a good bed of rich black loam, with winter protection for the roots in the form of a heavy mulch of well-rotted manure. The wood sometimes lives through the cold weather without serious injury, but it is better to lay down the vines and protect them with a good covering of clean soil, leaves or hay. Upon replacing the vines in the spring all weakened parts should be cut off, and for the largest flowers the sound branches should also be cut well back. This is the most satisfactory of the hybrid Clematis varieties.

Clematis Henryi, another hybrid, bearing six- or seven-rayed flowers, creamy white and of the largest size, is a free bloomer and a striking plant, but has shown itself much less hardy here than the preceding under the same treatment. Its general growth and cultural requirements are the same. Its showy and abundant bloom render it worthy to be grown in large pots or tubs, for veranda decoration, the plants being removed during winter to a cool cellar to prevent injury by frost.

Clematis Viticella, a species native to southern Europe is grown with fair success. It is moderately vigorous, with lilac or purple flowers, four-rayed, spreading about two and one-half inches. Where variety is desired this species may be admitted, but for display it is quite inferior to its hybrid, Jackman, and is little superior to it in hardiness.

Clematis Viorna, the "leather flower," native to the eastern United States, varies in the Southwest into the more beautiful red flowered form Coccinea. The form is a slender vine of neat growth with solitary bell-shaped flowers about an inch in length. When well grown the plant attains a height of eight feet, and by its clean habit is well adapted to the purposes of a pillar plant. It is only of moderate hardiness, demanding a favorable situation and winter covering.

Clematis Pitcheri, growing wild in copses throughout eastern Kansas, while somewhat less neat in growth than the preceding, is greatly improved under cultivation, and deserves a place in every collection. Its flowers are single, bell-shaped, about an inch in length, and of a dull purple color, followed by conspicuous silky seed-clusters. It is perfectly hardy.

Clematis Flammula, the European fragrant "Virgin's-bower," has shown itself with us a very desirable wall plant. The growth is strong and in protected situations nearly or quite hardy, furnishing, in average seasons, its pure white, star-shaped, fragrant flowers in great profusion throughout late summer. The foliage is of a healthy rich green, the leaves remaining on the plant until midwinter. After flowering the plant is still conspicuous by reason of the abundant feathery seed-clusters.

Clematis Paniculata, a Japanese species much like the foregoing, is apparently still more vigorous and hardy, and on account of the large flowers, also more beautiful. Since its introduction it has become a great favorite as a veranda or wall climber, and it may be seen in good condition in many city and country places in eastern Kansas. The flowers being produced upon new growth, the best results are produced by close pruning, where the wood survives. This species and the Flammula do well when fully exposed to the sun, if their roots be in soil rich, deep and cool. Where but a single Clematis can be grown the Paniculata will prove the most satisfactory in ordinary treatment.

Clematis Virginiana, or "Native Virgin's-bower," grows wild in some of the eastern counties of this state, forming a strong woody vine of rampant growth, perfectly hardy in good soil. It is useful as a screen plant, though in beauty much inferior to the two preceding. Its abundant flowers are small, and creamy white, and are followed by numerous feathery seed-clusters. It spreads naturally by layering, and may soon be brought to cover a large space, appearing to greatest advantage in the less formal parts of the lawn, as on a rocky slope or against a rough wall. From such a base it will climb upward into the lower branches of an overhanging tree, when its true use and beauty are fully apparent.

**Is a Timber Famine Imminent?**

In the manufacturing investigations of the Eleventh Census, made in 1890, lumbermen and mill owners were asked how much timber land was owned by them, and what was the stand of timber upon it. These questions were quite generally answered, and the replies showed that a total area of 27,664,626

acres, or about 43,200 square miles, was reported upon, with an average stand upon it of 7,830 feet per acre. Nearly all of this area was in the Eastern States. The stand of timber averaged by states ranged from 3,000 up to 41,000 feet per acre, the latter stand being in the state of California. The average stand in the Southern States, including pine and hardwood, was 6,000 feet, and in New England 6,500 feet. These figures of average stand, however, are misleading, since they represent not the average of the timber land of the country, but the best of it, quality having largely determined the selection of lands. It would, therefore, be unsafe to accept these figures of stand as the average, even for the lands which are covered with merchantable timber. The average stand of the wooded regions of the eastern country must be far below these figures. Indeed, estimates of the stand of southern pine show the much lower average of about 3,000 feet per acre for the entire region.

"Judging by the above facts and numerous other straws of evidence which it would be tedious to enumerate here," says Henry Gannett, in the October Forum, "I have come to the conclusion that the average stand upon the wooded lands in the East probably does not exceed 1,500 feet. The area of woodland in this part of the country is a little less than half a billion acres. The stand of timber upon it, therefore, may be in the neighborhood of 750 billion feet (B. M.). With that estimate in the West, 630 billions, the total stand in the country would appear to be, approximately, 1,380 billion feet (B. M.). In 1890, the cut was about 25 billion feet, and since then the annual cut has somewhat increased. The present stand would therefore supply the present rate of consumption for about fifty years. As a random statement, then, it may be said that we have timber in stock sufficient to last the present demands of our industries for nearly two generations. Some species, however, which are applicable to certain purposes, such as the southern pine, the redwood, and the red fir, will last longer than others, and some species, like the black walnut and the white pine, are already very nearly exhausted."



R. M. Kellogg, Three Rivers, Mich.

The Newly Elected President of the Michigan State Horticultural Society.

Mr. Kellogg was unanimously elected president of the Michigan State Horticultural Society at its recent annual meeting in recognition of the work Mr. Kellogg has done for horticulture in elevating the standard in fruit growing throughout the country.

His book entitled "Great Crops of Small Fruits and How to Grow Them" clearly pointed out how our old standard varieties could be so improved as to produce two berries where one grew before.

The old time fruit growers were slow to accept these theories, but now after repeated trials and scientific investigation by the Agricultural Department at Washington as well as many state experiment stations, it is shown that Mr. Kellogg was not only correct in theory but results of his methods were greater and more far reaching than he claimed.

Mr. Kellogg is well known to Kansas readers because of his advertising announcements every season in the KANSAS FARMER for several years past.

**Seeds that Surely Grow.**

The cost of seeds compared with the value of the crop is so small that a few cents saved by buying second rate seeds will amount to many dollars lost when the harvest is gathered. Farmers have found out by many costly

failures what a risky thing it is to buy seeds without being pretty sure that they are reliable and true to name. The latest catalogue of the seed house of D. M. Ferry & Co., of Detroit, Mich., is a reminder that thousands of farmers in the United States and Canada have pinned their faith to the reputation of this great firm. During a business career approaching half a century in time Ferry's seeds have won an annual increase in popularity, which is perhaps the best evidence that they grow and give satisfaction. Ferry's Seed Annual for 1901 is a useful guide in selecting seeds for the farm, the truck garden and the flower garden. It is sent free on application.

The city of Worcester boasts the proud title of "The Heart of the Commonwealth." It boasts a noble history and its life to-day is one of great energy. It is an immense manufacturing center, with business interests more varied than those of almost any other city in New England. Its educational life is noteworthy, its institutions of learning, from its public schools to Clark University, being such as any city might well be proud of. It has had a long line of distinguished sons and citizens from its foundation down to the times of George Bancroft and George F. Hoar. It is altogether a representative New England municipality. A general article upon such a city could not fail to be interesting and valuable; and emphatically so is the article upon Worcester by Hon. Alfred S. Roe in the January number of the New England Magazine. The past and the present of the city have equal treatment, the pages abound with attractive pictures, and the article will appeal to every son and daughter of the "Heart of the Commonwealth."

Mr. R. Bradley, of Abilene, Kans., is placing on the market for introduction a new Kansas peach called "Dean's Orange." It is a yellow free stone, a sure reproducer, and is reported to be of high quality. It was originated in Saline County and is especially adapted to Kansas conditions. For further information write to Mr. Bradley.

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or country property no matter where located. Send description and selling price, and learn my successful plan. W. M. Ostrander, 1215 Filbert St., Phila., Pa.

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Both uphold our seeds because they're sure of getting exactly what they pay for. Our three guarantees make  
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**HEALTHY TREES.** HOME GROWN, free from disease. We pay freight. Apple, \$3 to 4 ft., \$6; cherry, 2 to 3 ft., \$20; freestone peach, \$2; Concord grape, \$2 per 100. 1000 Ash, \$1; Catalpa, Locust, R. Mulberry B. Elder and Osage Hedge; low prices. Catalog free. Jansen Nursery, Box 52 Fairbury, Neb.

**SEEDS AND POULTRY SUPPLIES.** Seeds, bulbs, and poultry supplies. T. LEE ADAMS, 419 Walnut Street, Kansas City, Mo.

**STARK TREES SUCCEED WHERE OTHERS FAIL.** Largest Nursery. Fruit Book Free. Result of 16 years' experience. STARK BROS., Louisiana, Mo.; Dansville, N. Y.

**AGENTS WANTED!**

40 per cent Commission paid to routing men to canvass for Nursery Stock. OUTFIT FREE. Address, **HART PIONEER NURSERIES,** Fort Scott, Kansas.

**Italian Bees.**

Full colonies shipped any time during summer and safe arrival guaranteed. It will pay you to try my stock of Italian bees in the Latest Improved Hives. Nothing will double in value quicker.  
A. H. DUFF, Larned, Kansas.

When writing to advertisers mention Kansas Farmer.









### Kansas Farmer's Handy Guide

Contributed from various sources, including correspondents, scrap-books, and farm papers. Compiled and arranged by J. Clarence Norton, Moran, Kans.

#### CANNING AND CANS.

**Canning Tomatoes.**—Peel with a sharp knife without scalding. Place enough for a can into a vessel (porcelain is best) leaving them whole. I always select medium sized ones as they will go in the cans without breaking. Let them come to a boil, which is sufficient to heat them through. Have your can ready, and with a large spoon dip them up one by one and place in the can, shaking it gently to settle them. When full put enough juice on them to cover them, which won't be much if you have shaken them enough. Seal up quickly and keep in a cool place. They keep for me equally well in glass as in tin. All that have eaten or mine pronounce them equal to the best canned tomatoes on the market. I opened some less than a week ago, and they were as good as when canned, and the beauty of them is they are entirely whole and can be cooked to suit you.

**Canning Fruit.**—We preserve fruit by means of salicylic acid. This is a white powder which can be purchased at any drug store. It may be dissolved in water, but it is much better to use alcohol. Add 1 teaspoonful of acid to enough water to cover a gallon of fruit. Wash the fruit but do not peel. Place it in jars—two gallons being preferable—and cover with the mixture. Cover the jar tightly and set in a cool place, and you can eat fruit just as picked from the tree at any season of the year. The acid taken in smaller doses is known and used as a remedy for rheumatism.

[There can be no objection to the use of salicylic acid on the outside of fruits when the latter are afterwards peeled. Possibly the drug may be serviceable as a preservative in many cases in this manner. We will give a very valuable recipe for keeping eggs as good as fresh for months by means of salicylic acid. But don't use the drug with fruit or vegetables in such a way that it has to be taken in the stomach. It is only to be used as a medicine and on physician's prescription. Its use in some countries is even forbidden by law.]

**Soda in Canning.**—I use a tiny bit of baking soda in canning pie instead of sugar, and for canning gooseberries and sweet corn. Have never had any spoil.

**Canning Corn and Tomatoes.**—Get a good variety of tomatoes, scald and peel. Now have sweet corn that is nicely in the milk, shave from the cob, taking care not to cut too deep. Cook together, fill your cans, seal carefully, and if you are fond of both, you will surely can every fall in this manner. Be careful and use only one-third corn, as it will ferment and your labor be lost. Canning corn alone is a long, laborious task, and not often a success.

**Canning Tomatoes.**—I take nice, ripe tomatoes, wash and scald them, and put on to cook with a little salt. As soon as they boil I have my can in hot water ready to fill. I take the cans out and fill, then seal and turn them bottom side up to see if they are tight, and set them on a table until cool. Tighten again and put them in a cool, dry place, and darken by putting paper over them, and there will be no trouble in keeping. I have some of last fall now canned. They are as nice as if taken out of the garden.

**How to Save Tin Fruit Cans.**—Take clean, fresh lard and a soft, white cloth; rub the inside of can, also lid, with a small portion of lard. The cans will last three seasons, instead of one. This is splendid to save cans in which tomatoes are put, also pears and peaches. It will not hurt the taste of the fruit a particle, as I have practiced it for years.

**Broken Cans.**—Do not throw away good cans or jars because they have no tops. Procure 1 pound of rosin, 2 of gum shellac, 1 of beeswax, melt slowly together. Cut covers from new unbleached muslin large enough to cover top of can and tie around the neck. Smear with the thin, hot wax and apply smoothly to the can, wax side down. Tie neatly and then give the top a slight coat also. It is the only kind of sealing wax we use, and equally effectual with a 6-gallon crock of peach butter or bottle of catsup.

**To Fill Fruit Cans.**—Take a milk strainer in which the wire is worn out, remove the wire and you have an article by which you can fill the cans easily and quickly.

**Canning and Other Hints.**—We have been using canned corn and tomatoes this winter that are splendid, and canned the tomatoes cold, just as we

can rhubarb, after skinning them. They are fine. Anyone subject to dyspepsia will find them the best medicine they can use. The corn I cooked in the boiler in the usual way, then packed in the cans gently with an old-fashioned potato masher, putting salt between each layer as I filled the can. This way beats any other I have ever tried, as it is so easily done. The salt is what preserves it. If one wants a funnel to use in filling fruit jars swiftly and neatly, try my invention. Remove the cone from an old oil can with a pair of shears, then the little top where the cover screws on, and insert the funnel in the jar and the filling is easily and nicely done. It beats the store funnels, as the tubes of the latter are too small for anything but liquids and have to be held up by the hand as the filling proceeds. I tried the baking powder can to cut up potatoes when frying. It was not satisfactory, as the suction of air drew up too much potato inside. I removed the bottom also, and now it chops perfectly, acting more as a circular cutter. I use it over the dasher in churning so the cream cannot splash out.

#### CARPETS.

**Carpet Beetles.**—For keeping dresses and clothing from carpet bugs, we have found the following a great convenience as it saves the time and labor spent in shaking garments. Have a blacksmith make you two slender iron rods about 18 inches long, with threads cut on one end and the other bent to form a ring. Now get a pole about 10 feet long, and 1 1/2 inches square. Put the rods through the pole about 1 foot from each end and fasten with nuts. In the ceiling overhead put 2 screw hooks, from which suspend the pole by the iron rods. On each side of the pole put small hooks about 6 inches apart, on which to hang dresses, coats, etc. Be sure that nothing on the pole touches the wall at either end. It is best to suspend the pole through the middle of a room, as the bugs can climb the sides, but cannot hang on overhead.

**Remedy for Carpet Bugs.**—One year ago, after several years' sickness, I was able to get up stairs to my chamber. I found both buffalo and common moths. The carpets had been taken up early. Opening closets and bureau drawers, I had an iron pot brought, putting in a pint or so of sulphur, with a few shavings on top. It was lighted with a match on the piazza roof; the rooms were kept closed over night. No more live moths were seen last season. I was so successful, I shall pursue the same method this year. I have never seen the moth miller so abundant. Do not inhale the sulphurous gas. We often use it as a disinfectant. Early in the seventies my husband carried his horses safely through the epizootic that raged so generally through New England, by burning sulphur each day in the stables.

**About Carpets.**—Floor rugs made from pieces of carpets are mean about curling up at the edges. If they are slightly dampened on the wrong side at cleaning times, they will lay smoothly; also in refitting carpets all unsightly creases will soon come out by wetting

with a cloth on wrong side. One good way of catching and allaying the dust, is to wet the broom, beating it until it won't drip, and repeating this a number of times while sweeping; being careful to wash the broom free from dust each time. To keep carpets bright and new looking, sweep often, and the dust will not grind the color out. If there is an unavoidable dust while sweeping, a good plan, which I always follow, is to tie a loose cloth over the mouth and nose; for the breathing of fine house dust is very injurious and uncomfortable. Brooms will last a third longer, and sweep much better if occasionally scalded in water.

**Sweeping Carpets.**—If you will use old clean newspapers, torn into pieces and crumpled up, dipped into water and squeezed partially dry, and then throw them around on the carpet, you will find they will take up the dust and work much nicer than salt, tea leaves or anything else. By putting broom onto two or three pieces and using it under stove, bed or any furniture that can be swept under but not easily moved, you will get the floor cleaner with less dust than any other way. For your hard, wood floors, after washing clean, take one-half raw oil and one-half kerosene oil, and with an old mop handle filled with short pieces of woolen cloth, making a mop not over three or four inches long, you can oil your floor quickly and easily, and it will last long and look well. Clean and oil once in 1 or 2 weeks.

**Wall Paper for Carpet.**—For a cheap carpet for spare bedrooms, take old papers, paste on floor; when dry put paste on papers, put on wall paper; when dry put on a light coat of varnish. This makes a nice and cheap carpet.

**Mending Rag Carpet.**—For small holes that will get burned, or even quite large ones, take any kind of cloth, (use colored Canton flannel) smear with good flour paste, lay on hole, and press with hot iron until dry; will last as long as the carpet.

**Items on Carpets.**—We had a good carpet that was badly faded. After cleaning and tacking down, I mixed some diamond dye in a small tin vessel, and using an old tooth brush applied it as hot as possible, following the stripes of figures. I used red and blue. It was a great success. In fitting a carpet, always sew on the machine or backstitch each side of the place you aim to cut. It will prevent raveling. It is a great saving of time and work when having a carpet woven, to take the measure of the room, and to have the weaver weave a couple of inches of chain and thread wherever it is necessary to cut and hem.

**Carpet Beater.**—Take a piece of 1/4 No. 9 smooth fence wire about 3 or 4 feet long, fasten one end to end of round stick (an old broom handle will do) for a handle; then bring other end around so as to form an ellipse, and fasten to handle. Hang carpet on line or fence and beat with wire end of beater. Think carpet can be cleaned cleaner, sooner and easier than by the old way of shaking or beating with a straight stick.

**Kitchen Carpet.**—A carpet of this kind has been in use in my home for a number of years. It was an old rag carpet, well worn. I washed it, patched all worn and thin places, then tacked it to the floor, stretching it tightly. I made a pail of flour paste, the kind paperhangers use; using an old broom I rubbed this well over the carpet. When

## WATCH THIS SPACE FOR BARGAINS. IT BELONGS TO HAPGOOD PLOW CO., Box 15, Alton, Ill.

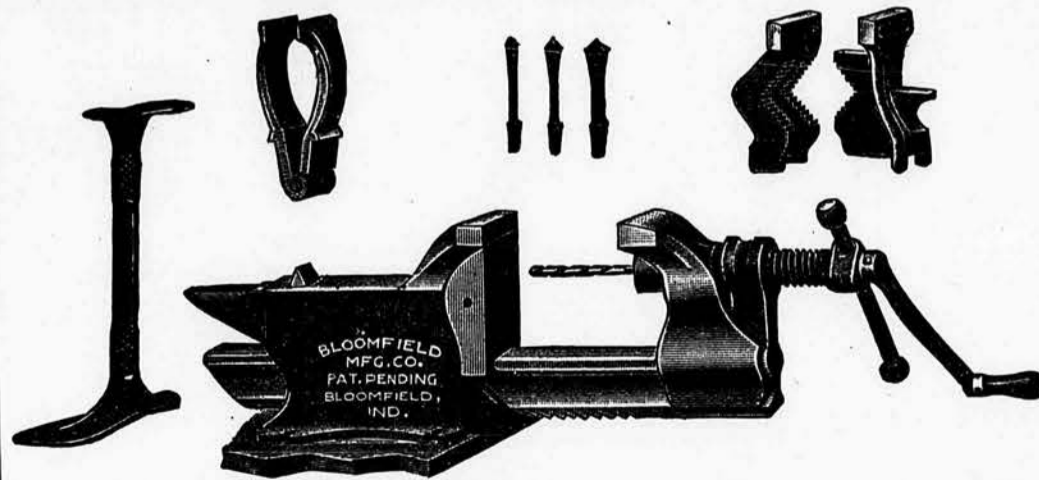
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**OUR NO MONEY OFFER.** Cut this ad. out and send to us, give us an idea of coloring or combination of colors wanted, and we will send you a big full dress pattern of 7 yards of this fine, new style French dress goods, by express C. O. D., subject to examination. You can examine the goods at your express office, and if found perfectly satisfactory, exactly as represented, then pay the express agent **OUR SPECIAL OFFER PRICE \$1.98** and express charges. (The express charges will average 25 to 50 cents). These goods vary from 18 to 40 inches in width. If more than 7 yards are wanted, 25 cents per yard extra for a full dress pattern of 7 yards is based on the actual cost of the entire lot to us at a forced cash sale under the hammer, ocean freight to New York, rail freight to Chicago, and but our one small percentage of profit added. We could sell the entire lot to any wholesale dry goods house in Chicago today at a big profit, but we want to give our customers the benefit of this purchase, give you for \$1.98 such a dress pattern as you could not buy elsewhere at less than \$4.00. **ORDER TODAY. DON'T DELAY.** Don't wait to write for samples. These goods will go quickly, and when they are gone there will be no more. **UNDERSTAND,** you take no risk, if they don't suit you and when examined at the express office, don't take them and don't pay a cent, but order at once. If you will state your age and complexion, and allow us to select the coloring, we will give you the handsomest and most becoming thing we have. **WRITE FOR FREE DRY GOODS CATALOGUE.** Address, **SEARS, ROEBUCK & CO., Chicago.**

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This set of tools will save many a trip to the blacksmith shop. Often a handy man can do a bit of repairing as quickly as can the smith, and the farmer enjoys doing the work better than standing by and seeing the other do everything with this set but you can do many things. It consists of Vise, Anvil, Drill, Hardy, Pipe Clamp, Saw Clamp, Shoe Last and 1/4, 5-16 and 3/8-inch Drill Bits, Jaws of the Vise open nine inches. Anyone in need of tools cannot afford to be without this machine at the low price we offer it. The jaws of the Vise open wider than those on higher priced machines. The Vise and Drill are effective for all ordinary repair work and are equal to any high-priced tools of equal size. All the attachments of this machine are very convenient and will be found useful. Machine works perfectly and is built of good material throughout.

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paid to our nearest authorized agent or sent to the Kansas Farmer, Topeka, Kans., we will send the Kansas Farmer one year and this set of tools, charges prepaid, to your nearest railroad station.



this was thoroughly dry I put on a good coat of paint. When dry, I added another coat. This will make a carpet as good as oilcloth and is easy to keep clean. A new coat of paint applied once a year will keep it in repair.

**Carpets, Matting and Sweeping.**—We all want short cuts this cold weather for sweet comfort's sake. One I find full of solid satisfaction is a strong matting well tacked to the floor, and covered with rugs, or bits of carpet around the fire, bed, and wash-stand. These can be removed when sweeping, which can be done with comparatively little dusting, which after sweeping a heavy carpet, is the most wearisome of jobs. But if one has carpets they may make matters much easier by making less dirt. After taking up the top dirt from the corners and elsewhere, a good way, if you have no carpet sweeper, is to dampen the broom slightly, in a small tub or basin half full of water, and go over the second time, moving the broom forward to your side. Never thrust it before you, pull back, or run it under furniture. A good broom thus used will remain good many months, even years, if only one person, who knows, uses and cares for it. Why buy and re-buy such little things and never have anything left with which to purchase luxuries, and give to those who really need. Only the rich can afford to help the world along by extravagant ways. We want short cuts.

**Sewing Carpet Rags.**—If you have carpet rags to sew together, you (or a child) can do it without sewing and three times faster, doing equally as good work. Take a piece of board, drive through it a knife-blade—a wide blade of an old pocket knife sharpened for two edges is good. Also drive through a dull nail towards the other end of board. Now lay the board in your lap. Take ends of two rags, overlap them and make a hole through both by pressing them on the blade. Now take the other end of one rag, put on the protruding nail and push through the hole; pull through the whole rag and continue as before.

**Sewing Carpet Rags.**—Anyone who has made rag carpet and sewed the rags by hand, which is such an everlasting job, will appreciate the novel way of sewing them on the sewing machine. It can be done in less than half the time it takes to sew them in the old way. Where rags are not too short, 1 pound can easily be sewed in an hour, besides it can be done much neater and better. Lap the rags together and start in at the right hand corner, sew diagonally across; loop the rag and sew as before, looping the rags to right and left. Any child can sew them this way and can easily cut them apart. Try this and you will be delighted.

**Sewing Carpet Rags.**—A quick way to sew carpet rags when the pieces are straight on the ends, is to lap the ends of the pieces over each other, leaving one edge out further than the other the width you want your carpet rags, run them through the sewing machine three of four times, sewing near the edges. To tear the rags, begin with the edge that is left out, and tear round and round, cutting across the seam.

**An Excellent Carpet Stretcher.**—Get board (1 by 5 inches) about a foot shorter than width of the room, drive about 4 wire nails angling through near the end of the board to prevent slipping on the carpet when you push. One person drives tacks, another uses the board, stands against the wall on opposite side of the room, so his weight won't hinder the free stretching of carpet. The tack driver must move the board to every tack and pull to him every time so as to keep carpet stretched even both ways. With this one can put down a carpet as nice as with a patent stretcher.

**Carpet Stretching.**—Cut a strip 2 by 4, 14 inches long; drive 8-penny wire nails 1½ inches apart, at angles of 45°. Let nails project through ½ inch and file to a point. Then take a limber board—a piece of flooring is about right—1 foot shorter than your room, and nail top of block, in center. Set nails firmly into carpet; let opposite end rest against a perpendicular board, to protect wall paper, 3 or 4 feet from floor, then spring the board down gently a little at a time, until you have carpet sufficiently tight, and tack. Place strip across windows and archways for perpendicular board to rest against.

**Stretching Carpets.**—Take two pieces of 2 by 4 scantling, 1 piece about 3 feet long and the other to be in length according to the width of the room. Put a nail through the middle of the short one into the end of the long one, making a T. Place your feet against the cross of the T while on your knees. Place the other end of the T against the opposite side of the wall. Grasp the carpet with both hands and push it in

place, while an assistant tacks it. Straightening the body stretches the carpet. In this way you can stretch carpet better and easier than with a patent stretcher, and it won't hurt you nor the carpet.

**Stretching Carpets.**—First tack two sides of carpet to its place; then have a good, strong man with rubber boots on (rubber shoes will do). Start at the side of room already tacked, and go next to the side you want to tack, letting the man shove his feet, bringing them down hard as he goes. Let him go to within about 3 feet of the wall and then stop and stand on carpet while someone does the tacking. If it does not reach the wall the first time, repeat until it does. I can stretch a carpet better and quicker in this way than with the best of carpet stretchers.

**To Take Ink Out of Carpets.**—First get as much out as possible with a blotter, then rub hard with Ivory Soap and hot water. This never fails if diligently applied. Ink can also be taken out of white material by putting lard or mutton suet on both sides of spot, and then let stand all night, after which wash in very hot water.

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She—Not when they're wrong.—Yonkers Herald.

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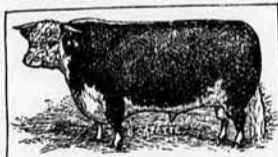
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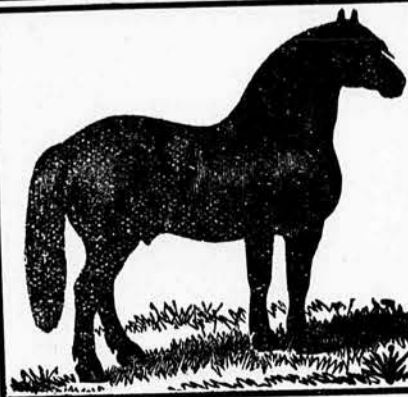
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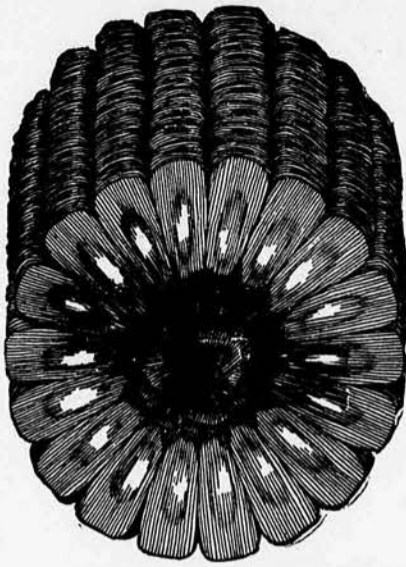
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By act of Congress there will be opened this coming spring or summer 3,000,000 acres under the provisions of the homestead laws. These lands are known as the

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 Book containing bill of opening, sectional map, diagram of corner stones, how to locate a claim, who can take a claim, description of country in detail, reserved lands, Wichita mountains and their mineral resources, mining claims, privileges of Union soldiers and sailors, also soldiers in the late war with Spain, soil, climate, timber, water, crops raised, townships, railroads, Wichita reservation. Price, postpaid, 50 Cents.  
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 The KANSAS FARMER office is equipped with all the needed presses, type, and other materials for doing the highest grade of book, catalogue, and newspaper printing. For several years this has constituted a considerable part of the work of this office. We do not execute the ordinary commercial job printing. This can be obtained at the office of your home paper and ought not to be sent away. But if you have a book or catalogue of any size to print, a first-class job can be had at the  
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 In club with KANSAS FARMER one year for \$2.00. Address **KANSAS FARMER CO., Topeka, Kansas.**



# 1901. 20th CENTURY OPENING. 1901. Sotham's 19th Annual Sale of Hereford Cattle,

To be Held in the Magnificent New, Steam-Heated, Fine Stock Pavilion,  
Kansas City Stock Yards, Kansas City, U. S. A.,  
January 22d, 23d, 24th and 25th, 1901.



### ON TUESDAY, JANUARY 22d,

will occur the 19th annual sale of the WEAVERGRACE HEREFORDS; 24 young bulls and 26 heifers, comprising the cleanest sweep of all the best salable product of the WEAVERGRACE HERD ever permitted. This offering includes more sons and daughters of CORRECTOR than were ever offered in one sale. Also sons and daughters of IMPROVER and other Weavergrace sires out of CORRECTOR dams. The best son of Lars, out of the dam of Hesiod 2nd; the best son of Beau Brummel, Jr., out of the Champion Lady Laurel; the best son of Dale, with a rare blend of prize winning blood on the dam's side; one of the best sons of Keep On from a CORRECTOR-bred dam. The majority of the females safe in calf to CORRECTOR or IMPROVER. The Proprietor and Manager of Weavergrace warrant this the best offering ever made from this herd and unhesitatingly state their belief that it is the best offering of fifty cattle ever placed before the public at one time.

### ON WEDNESDAY AND THURSDAY, JANUARY 23d and 24th,

the undersigned will sell for the RIVERSIDE HEREFORD CATTLE COMPANY of Ashland, Nebraska, 75 head of picked young cattle from the largest collection of pedigreed beef cattle in existence, including 40 females and 24 bulls "topped" from the celebrated SHADELAND HERD recently purchased by them, as follows: 12 bulls and 12 females by Acrobat; 3 bulls and 9 females by the "record breaking" EARL of SHADELAND 2nd; 4 bulls and 6 females by the celebrated English sire, Diplomat; 3 bulls and 3 heifers by Banker; 1 cow by the Royal Prize, Garfield; 1 cow by Tammany; 1 cow by the Champion SIR BARTLE FRERE, and 1 by the well known Gold Dollar; 1 bull by Gold Dust, and 1 by Clarence. This is the only opportunity ever offered to secure the tops of the Shadeland Herd, and the only offering from this herd by Auction in ten years. The remainder of the Riverside offering includes four heifers by their celebrated ADMIRAL, and one animal each from following well known sires: CORRECTOR, Washington, Lord Fulton, Java, Climax, Wild Tom, Silky and Almont. It is believed that numbers considered the equal of this offering has never been made.

### ON THURSDAY, JANUARY 24th,

immediately after the close of the Riverside sale, I will sell for the EGGER HEREFORD CATTLE COMPANY, Appleton City, Mo., 12 bulls and 12 heifers by their celebrated sire, CHILLICOTHE, champion over all breeds and one of the best sons of CORRECTOR. For depth and smoothness of flesh, combining quality with scale, these are sure to prove a sensation. The heifers will have calves by their side or be heavy in calf by Salisbury 4th or Billy Cummings.

### ON FRIDAY, JANUARY 25th,

I am instructed to sell for the following well known breeders: CLEM GRAVES, BUNKER HILL, IND., offers 20 head of the tops of his famous herd, including his entire show herd with the exception of Dale, Dolly 5th and Lady Help. This includes the celebrated Champion heifer, CARNATION, believed by Mr. F. A. Nave the best animal he ever exhibited, and all other females by such sires as COLUMBUS (sire of the \$5,050 Columbus 17th, and the \$7,500 Dale), Cherry Boy, Acrobat, Harold (sire of Corrector), Lyford, Star Grove 17th, and 8 bulls by such sires as Star Wilton 20th, Liberator (by Corrector), Imported Freedom and Tip Top.

MAKIN BROS., LEES SUMMIT, Mo., will offer seven females and three bulls, 3 of which are by their celebrated prize winner JURYMAN; 3 by Stanley (a son of Hesiod), 3 by the prize winner Dixie, and one by Stripes. The females will be bred to or have calves at side by PRINCE HESIOD, son of Hesiod.

A. F. M'CARTY, Humbolt, Kan., will offer two bulls and four heifers bred from the blood of GARFIELD, FORTUNE, BEAU DONNARD, etc. The heifers in calf to RIGHT SORT (by Corrector).

GEO. W. DENNIS, Cisco, Mo., will offer one well known bull, Young Shadeland, by the Champion SIR COMEWELL, (son of CORRECTOR), also two bulls and three heifers by the IMP. LINCOLN and out of richly bred dams.

J. C. ADAMS, Moweaqua, Ill., will offer a daughter of the \$1,000 cow Blendress, by CORRECTOR; 3 splendid heifers by the \$1,575 EXCELLENT, champion over all breeds, and a son of Imported Freedom.

D. W. BLACK, Lyndon, O., will offer an ANXIETY-bred bull by MILLITANT, and the WILTON-GROVE-ANXIETY Bull, But Cut 3d.

GEO. B. CONLEY, Marshall, Mich., will sell KANSAS KING, the only calf that ever beat Mr. Nave's Perfection.

### SALES WILL COMMENCE EACH DAY AT 1 P. M. SHARP.

The cattle of each breeder will be sold separately, each contributor's consignment being a distinct sale by itself. Fifty head will be sold each day; in all, 200 head. The sale will be conducted under my rules and management. This will be the best 200 cattle of any breed that ever passed at one time under the Auctioneer's hammer. Auctioneers: Col. J. W. Judy, Col. R. E. Edmonson, Col. F. M. Woods, Col. J. W. Sparks, Col. Carey M. Jones, and Col. H. W. Graham.

For further information see reading matter in this paper, or address the undersigned. Sale catalogues ready January 10th. Persons whose names are on my list will receive catalogues without writing for them.  
MILTON W. BROWNE, Cashier.

T. F. B. SOTHAM,  
Weavergrace Breeding Establishment,  
Chillicothe, Missouri.

