



LIVE STOCK

RANGE IMPROVEMENTS.

Problem of Restoring Grasses on Overstocked Lands.

In a circular just issued by the agricultural department it is stated that the chief problem in the cattle regions of the southwest is, how shall we restore or bring back the grasses on lands where they have been destroyed by overstocking? An estimate based on such statistics as we have been able to obtain from correspondents indicates that the carrying capacity of the southwestern ranges was 40 per cent less at the beginning of 1897 than it had been in 1880. The money value of this loss has been variously estimated at from \$10,000,000 to \$40,000,000 in the state of Texas alone, and on other ranges in the western states and territories the aggregate loss from overstocking is not less than \$100,000,000. In other words, if the natural pastures in the country west of the ninety-eighth meridian were now covered with as luxuriant a growth of grass as they were 20 years ago, the additional number of live stock which could be carried would be worth probably upward of \$100,000,000.

The regaining of overstocked lands is to the interest both of the individual stock owner and the commonwealth. The small losses sustained by each owner become in their aggregate a sum which materially affects the welfare of the state. It is the common testimony of stockmen that there are vast areas where the abundance and quality of the natural herbage have been decreased. The better grasses have been run out by overstocking during years of drought. Weedy annuals of less value, because less palatable to stock and less nutritious, have taken their places. If these fall the ground becomes entirely bare of vegetation. In other sections the amount of natural pasturage has been decreased by the encroachment of perennial weeds and thorny shrubs and by the cactus thickets, or the grasses have been destroyed by rabbits and prairie dogs. Overstocked lands are not only unproductive, but they rapidly deteriorate in productive capacity. They require rest and treatment to again restore them. The soil becomes hard and compacted by the trampling of cattle. Less of the annual rainfall is absorbed by the soil, and more each year is lost in the flood waters. Moreover the finer and hence richer portions of the surface soils are washed into the streams, because there is no protecting mat of grass roots to retain them.

The data thus far secured at the close of eight months work give sufficient promise that definite, tangible results will accrue from experiments for the benefit of stockmen. It is too soon to draw conclusions, but the outlook for rapid increase in the quantity of grass on these overstocked pastures is encouraging. Moreover, the methods in use are such as are well within the reach of any stock owner should he wish to avail himself of the results.

During the succeeding seasons experiments will be made as to the practicability of sowing alfalfa, bur clover, Bokhara clover, alfalfa, sorghum and other wild and cultivated grasses and forage plants directly on the soil, without further treatment than to keep stock out during at least the first year. On an examination of the plans it will be seen that a number of methods are being undertaken which may be adopted at but little expense by stock owners should they prove to result profitably.

**Heaviest Horse Ever Known.**  
The weight of this animal was 8,000 pounds, or nearly 1 ton 7 cwt. This Clydesdale horse, which was on exhibition at New York in 1889, was 20 1/2 hands high, and although only 5 years old measured 32 inches round the arm, 45 inches round the stifle or knee joint, 95 inches girth, 84 1/2 inches round the hip and 11 feet 4 inches in length. It was of perfect proportions, with a head 96 inches in length. A British draft horse has been known to stand 18 hands high and weigh nearly 18 cwt., while one of Wombwell's menagerie horses was once shown at Oxford measuring 17 hands 3 inches in height. The Thames Bank distillery at the cart horse parade of 1895 exhibited a handsome pair of bays, each of which stood 18 hands high and weighed nearly a ton. M. Lavalard of the Societe Nationale d'Agriculture de France gives the mean weight of horses as follows: Excluding ponies, which have an average weight of 440 pounds, the weight of horses varies from 660 pounds to 1,640 pounds. The weights of omnibuses, tram and cart horses vary between 1,100 pounds and 1,640 pounds. The weight of victoria and coupe horses, which is about the same as that of cavalry horses, varies between 990 pounds and 1,050 pounds. M. Lavalard's weights are for adult animals.

**Field Feeding For Hogs.**  
A number of men who have been very successful in their management of swine advise that the feeding, not only of stock hogs, but of the fattening hogs as well, be done in the fields instead of in pens. They will take on flesh more rapidly, if their digestion is not injured, when fed in pens, but they are healthier and take on better meat when fed in the fields, because of the exercise they have. The manure thrown out from the pens is almost always wasted, but if the animals are fed in the fields the feeding places will cover more ground and can be changed every day, so that the manure will be distributed over the ground, and with a little care in selecting the feeding places the portion of the land most needing manure will receive the largest supply of it.

FOOD FOR CATTLE.

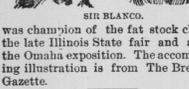
It is Successfully Manufactured From Cornstalks in Maryland.

The new corn product, upon which investigations have been conducted at the Maryland agricultural experiment station to determine its value as a stock food, says the Baltimore Sun, has been given much consideration by the farming community of the state; in fact, many states have taken up the subject and are conducting experiments to ascertain its relative feeding value. In the process of the extraction of the pith the blades and husk are cut up in small pieces after the extraction of the pith from the stalk the balance is ground up into meal, which in general appearance resembles coarse bran. This ground material is termed the "new corn product." The new corn product contains 11 pounds per 100 more digestible matter and 2 pounds per 100 more digestible protein than the whole fodder shredded. During the past few years much has been done in the way of testing methods for preparing corn fodder for feeding, with most of the results in favor of some method of shredding the stalk. Shredding possesses many points which make it superior to the ordinary or old way of cutting fodder, the principal one of which is that the shredded fodder is almost wholly eaten by animals.

It is found that the new corn product contains within one pound as much total digestible matter as wheat bran, but less than one-third as much digestible protein, consequently the nutritive ratio is wider. It was further observed that animals fed with a fattening ration with the new corn product base made more gain in live weight and upon less feed than with a fattening ration of the same grain and corn binder. The keeping qualities of the new corn product are as good as linseed meal, cottonseed meal or wheat bran, and rations made up with this material can be fed with less labor and less waste of feed than when hay and fodder are fed separately, as ordinarily practiced.

A Great Hereford.

The pure bred 2-year-old Hereford steer Sir Blanco was bred by T. F. B. Sotham of Chillicothe, Mo., and fed by Samuel Weaver of Forsyth, Ills. He



SIR BLANCO.

was champion of the fat stock class at the late Illinois State fair and also at the Omaha exposition. The accompanying illustration is from 'The Breeder's Gazette.'

Annihilating Wolves.

Northwestern owners of cattle and sheep will be interested in a contrivance, or wolf annihilator, for which W. J. Bennett of the Wyoming Valley Oil Company has applied for a patent. The annihilator is expected to revolutionize the methods of warfare against wolves and coyotes, which annually do more damage to the herds of stockmen than all other causes combined, not excepting even the severe storms of winter. Mr. Bennett is a chemist of experience, and of late has been experimenting along the lines of wolf destruction with remarkably satisfactory results. The annihilator consists of a small amount of nitroglycerin combined with other chemicals. This is the "bait" and is neatly buried in a piece of meat, which is fastened to the ground by wire, the wire being attached to the annihilator. When a wolf or coyote comes along, seizes the meat and starts off, the accompanying jerk on the wire explodes the nitroglycerin, and the detonation of that particular wolf or coyote is terminated, only enough of the carcass being left to exhibit as evidence necessary to secure the bounty offered by cattlemen and sheepmen for the killing of the animal. Mr. Bennett says his baits will be inexpensive, and experiments have proved that they are a success.

Place Memory.

There cannot be the least doubt that the "place memory" of animals and birds is of remarkable strength. Take a horse over a long, peculiar and intricate road. Let him pass a certain spot or corner with fear or suspicion, he will remember the exact locality on a second journey. It is a truism that a horse or dog will find the way home with ease when man is quite at a loss how to strike the correct course. A hill pony which has had comparatively short experience of the ground will steer its way for home through the thickest mists. A sagacious dog will make a wonderful journey home. At times he will supply gaps in his chart in a most marvelous fashion, and reach his goal as if the journey were the most commonplace bit of traveling. It is probable that animals and birds have an intense and delicate faculty for storing physical appearances. There is reason to believe that air currents and temperature have played a primary part in guiding birds on far journeys.—London Live Stock Journal.

\$17,500 For a Merino Ram.

In one respect the year 1892 didn't establish a record, though most people thought it did. The sum of \$5,000 paid for a sheep last summer in England was not, as supposed, the highest on record. Mr. Paget Toynbee writes to the London Spectator that ten years ago he saw in the celebrated Carrigham flock of Merino sheep in Victoria, Australia, a prize Merino ram for which he had paid \$8,500, or nearly \$17,500. However, let no one claim that even this is the record price, for perhaps it isn't.

FRUIT AND FLOWERS

SPRING WORK.

Things to Be Done in the Orchard and Berry Patch.

Pruning can now be done on warm days, and remember never to trim trees when the wood is frozen. A good time to do this work is along toward spring, when the snow is going off. When we have cold nights and warm days, we can go about on the crust and trim the trees, since it is easy then to gather up the cuttings.

Standard pears and cherry trees should be cut back but little, if any, cutting out such branches only as are crossing or those that cross each other.

Apples should be looked over every year, cutting out enough of the top to let the sun's light in. Dwarf pears, plums, and peaches should be cut back severely. Raspberry and blackberry roots start very early in the spring, and must therefore be handled with care so as not to break the sprouts that start. If plants are bought at the nursery, they will have a foot or more of the cane on when the wood is frozen. A good time to do this work is along toward spring, when the snow is going off. When we have cold nights and warm days, we can go about on the crust and trim the trees, since it is easy then to gather up the cuttings.

In planting out your berry patch plant as early in the spring as the ground can be worked. Get plants as near home as possible. Raspberry and blackberry roots start very early in the spring, and must therefore be handled with care so as not to break the sprouts that start. If plants are bought at the nursery, they will have a foot or more of the cane on when the wood is frozen. A good time to do this work is along toward spring, when the snow is going off. When we have cold nights and warm days, we can go about on the crust and trim the trees, since it is easy then to gather up the cuttings.

Sweet Peas.

The ground may be easily made too rich for sweet peas. An authority on their culture speaks of complaints made by some persons that their sweet peas grew luxuriantly, but did not bloom, and says, in explanation, that they had used stable manure too freely, and the plants ran to vine. The sweet pea is one of that class of plants (the leguminous) which appropriate nitrogen, and heavy applications of nitrogen are therefore not needed. Another type of complaint was to the effect that young plants died after having made a good growth of several inches. Inquiry revealed the fact that in every case the plants had been frequently watered from a watering pot. Just enough water had been applied to keep the surface of the ground soggy, and the plants had damped off. Plant lovers should remember that one good watering which keeps the ground dry is worth a dozen dribblings. It is rare that a sweet pea bed should be watered oftener than once a week in good soil, and if the seeds are got in early a frequent stirring of the surface with a hoe or rake is better than watering at all.

Early Muskmelons.

Early melons are obtained by starting the seeds in two or three inch pots in sods, etc., one plant in a pot; then transplanting into a four inch pot; from these hardening off in a cold



MUSKMELOON PLANT READY TO TRANSPLANT.

Black Fly on Chrysanthemums.

During the season of 1892 our chrysanthemums have been kept practically free from black fly by the use of kerosene and water, says a writer in Gardening.

On the whole this treatment seems to me the most satisfactory of anything I have ever employed against the insect. Kerosene and water do not, as a rule, mix readily, but the mixing can be done under pressure. Our spraying was done with a bucket pump. The kerosene attachment is provided with an index which allows the kerosene to mix with the water in any proportions from 5 to 50 per cent. While perhaps not strictly accurate, the indicator is approximately so and near enough for practical purposes. Fifteen per cent of oil is sufficient for most soft bodied insects, and gave excellent results against the black chrysanthemum aphid. A larger proportion of oil cannot always be used with safety on the more tender plants in foliage. Five per cent is fatal to destroy the insects, while 15 per cent killed nearly every one, and not a plant was injured.

WEDDING APPAREL.

Costumes For the Bride and the Marriage Guest.

The subject of wedding gowns is inexhaustible, for marriages are continually occurring, and each bride wishes to have a costume which shall be somewhat different from any hitherto worn. As the bridal dress is more limited by conventional restrictions than any other toilet, much in-



SEPARATE VEST.

frills of silk and the only re-enforcements employed, the aim being to keep the folds soft and flexible. The inside frills are rather deep, and are plated instead of being run in.

CLOTH COSTUME.

Some of the newest elegant petticoats are of a fine quality of white taffeta, and are lavishly adorned with applications of delicate black lace. These black lace motifs are frequently lined with colored silk, pink being especially effective. White or very light silks for petticoats are more favored than those of deep color. Large stripes in light colors are never than floral designs or small patterns, unless the latter are woven and are of the same color as the rest of the goods, thus forming merely a broken surface.

INTERIOR DECORATION.

Draperies For Bedrooms and New and Old Furnitures.

In choosing the hangings for a bedroom the curtains for the windows and the draperies for the bed should be alike, but the portieres may be different. They should, however, harmonize with the general coloring and character of the room.



SILK BLOUSE.

A jewelry is a pretty ornament for the drawing room mantel, but if there is a fire in the fireplace the heat destroys the plants. Where the fireplace is not used, ferns, ivy and similar plants which re-

FAILLE COSTUME.

These, when not original antiques, are copied from valuable ancient models and are veritable works of art.

While thick satins, superb velvets, rich brocades and broche silks and checked moires are in great demand, there are also very thin and delicate materials, light and transparent as gauze. They are plain or are embroidered with lace, beads and spangles and are employed for dancing gowns, being trimmed with light and dainty decorations, which carry out the general diaphanous idea.

FASHION NEWS.

Interesting Items Concerning the Up to Date Wardrobe.

The day of bulky umbrellas is past. Now the umbrella must have a thin steel rod and be covered with thin, tough silk, so that it may be rolled up to the smallest size of an ordinary cane. The fashionable handle is of cut crystal, of china or of enamel, or it may be an attractively set miniature. There are also heads of birds and lately in some very ivory. The finely wrought silver handle is much favored, and dull gold is also seen, but a handle obtrusively adorned with gold in large masses is bad taste.



ELEGANT COSTUMES.

Rich Materials and Elaborate Decorations For Formal Occasions.

The sprays of orange blossoms used for the hair and the bodies of the bride are now small. Few skirts of wedding gowns are trimmed with flowers, although a spray of orange blossoms, employed to form a cross bars over a panel, are sometimes effective.

The costume of the wedding guest is always rich and of a color, black being inadmissible. The general out of all ornamental toilet is simple, but this is made up by the exquisite quality of the materials and trimmings. Velvets and broche silks are much worn, sometimes in combination, sometimes alone, and precious laces and embroideries afford the decoration. The elaborate and costly buttons in-

THE FASHIONABLE SKIRT.

It is Very Tight, and it Trails All Around the Edges.

Certain of the extreme skirts of the moment are absolutely without any fullness whatever at the back. In these the fastening is arranged at the left side of the front, whatever fullness is necessary to obtain the flare toward the front of the skirt behind being secured by laying a few plaits in the back seam about 13 inches below the waist. Pockets are an impossibility in these very tight skirts, as the opening would betray their existence, and the contents of the pocket, however trifling, would form a bulge. Where there are a few plaits, however, a pocket may be intro-



TULLE HAT.

duced, but it must be small at the top and rather long, so that the contents will hang low down toward the feet.

Women who persist in following fashion to the bitter end, no matter where it leads them, are much inconvenienced by the present dictum, which requires all skirts to be long, lying upon the ground in front and at the sides, as well as at the back. These skirts are pleasing and satisfying in all respects for carriage and house wear, but for the streets they are very troublesome and untidy. A skirt which occupies the ground is the only kind suitable for walking wear, and many women appreciate that fact and guide themselves accordingly.

Pockets are easily managed in loose outside garments. They are made of shirred silk and are sewed flat against the lining, elastic being run along the top to keep the contents of the pocket from falling out.

The illustration given in today's issue shows a hat of black tulle spangled with jet sequins. The tulle is shirred and forms a ruche at the edge of the brim. Around the crown is a dainty drapery of the tulle, and a fan of tulle bordered with a ruche stands up from the left side. The additional trimming consists of pink roses.

EVENING GOWNS.

Preferred Styles in Ball and Other Toilets.

The princess form is the most favored by elegant modistes, probably with a view to suppressing the skirt and bodice style with the bodice unlike the skirt. The latter style still holds its own, however, although it is abandoned for dress occasions and affairs of ceremony. The princess



EVENING GOWN.

shape has the advantage of displaying well the design of the rich brocades and fancy velvets now worn, the beauty of the pattern taking the place of extensive trimming. The richer the material employed the longer is the gown, all princess costumes trailing more or less, according to the quality of the tissue and the general elegance of the toilet. If the gown consists of but one material, trimmings of ruffles and ruches may be employed if they do not conceal the design of the goods. The fastening is almost always at the back, and the gown is closed by hooks or laces, the latter being preferred for evening gowns. The lacings extend from the top of the bodice to a little below the hips in order to keep the upper part of the gown perfectly tight and smooth.

Almost all ball gowns have no sleeves, the shoulders and the top of the arms being left uncovered. A slight drapery of tulle, a line of beads, a garland of flowers or a band of passementerie serves to hold the bodice up and takes the place of a sleeve.

The ball costume shown in the picture is of white crepe de chine with pink dots. It is made over white satin and has a full skirt with a flounce around the foot, narrow in front and deep at the back. The flounce is beaded by a little ruche of mousseline de soie and bordered by four narrow ruffles of mousseline. The full bodice has a heart shaped decollete, edged by a cascade of pink and white mirror velvet. The wrinkled sleeves of crepe de chine are transparent. There is a Louis Quinze knot of mirror velvet on the shoulder. The belt is of green satin. JUDIC CHOLLET.

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MORTGAGED.

"Mary, I saw the baker kiss you today. I think I shall go down and take the bread in future."

"'Twouldn't be no use, ma'am. He would kiss you 'cos he promised he'd never kiss anybody else but me."—Fun.