HYGIENE IN THE STABLE.

A Very Important Question of Stable Drainage Considered.

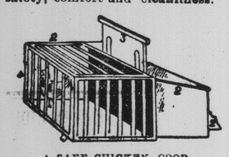
The evils which result from lack of drainage in stables are sufficiently great to attract the attention of a very indifferent observer, yet the majority of farm stables are built without the slightest provision for this object. All the liquid manure which is not absorbed by the bedding soaks into the soil beneath the building, and, sooner or later, becomes a source of danger to the health of the animals above. The absorbant and deodorizing properties of earth are very great, and large quantities of offensive liquids may be poured into the soil before it becomes saturated. When the soil is exposed to the sun and becomes dried at intervals, it preserves its antiseptic and deodorizing properties for a longer period, but where it is continually wet and shaded from the sun, as beneath the floor of a stable, the soil soon loses its deodorizing properties.

Putrifactive changes then take place in the organic liquids with which it is saturated, bacterial life is active, germs of various kinds find there a suitable breeding place, and the effluvium of this festering mass rises through the air of the stable. The most noticeable odor about such a stable is that of ammonia, and after being shut up closely all night the first whiff of it in the morning makes one recoil from entering such a place until the door has been open some little time. Ammonia is one of the products of the decomposition of urine, and is always present in small quantities in the air of ordinary stables, but where the odor is distinctly unpleasant it is a warning that urine in large quantities is stagnating and putrifying in or under the stable. The presence of this gas in a stable has a distinctly injurious effect on horses, weakening the respiratory organs, impairing the sight and interfering with the purification of the blood in the lungs. Its influence is slow and insidious, perhaps not actually producing disease of itself, but so gradually undermining the health of the animal that it falls an easy prey to lung fever (pneumonia), bronchitis, strangles, or any disease it may come in contact with. And ammonia is only one of the results of defective drainage. There are also the myriads of bacteria to be reckoned with, some of which may be the specific germs of disease, ready when a suitable opportunity occurs to produce cases of septicaemia, blood poisoning, or other germ-caused disease.

Enough has been said to show the great importance of stable drainage, and it remains to discuss the best methods of providing it. The coolness of our winters makes it a difficult question to find a way to drain a stable without having the drains blocked by frost in the winter, but if this cannot always be attained, it is at least easy to provide drainage for the spring and summer months, when it is more necessary than at other seasons. The first requisite is an outlet which gives a sufficient fall to ensure a rapid flow of the drainage. On the level prairie this is often difficult to obtain, and may necessitate the construction of a cesspit, though for many reasons this is to be avoided if possible. The simplest form of drain is constructed by digging a trench from the stable to the outlet, taking care to provide a regular incline all the way. Then fill in the bottom of the trench with loose stone, or large sized gravel about a foot deep; above this place a single rough board and fill in the earth again. The layer of gravel will afford a porous passage for the liquid drainage and will remain in good working order for a long time. Or a box drain of boards may be constructed and laid in the bottom of the trench, but this has the drawback of soon rotting away. A drain made of tiles is, of course, the best, but the expense and difficulty of obtaining tiles in this province places it in the reach of comparatively few, while the former methods can be followed by anyone. Beneath the stable the drain should have branches to take in the liquid manure from all parts of the stable. These branches may be part of the floor itself, or specially constructed beneath the floor. Even in the roughest kind of buildings where the animals stand on the bare earth, drainage may be provided at the rear of the stalls by means of the gravel-filled trench or wooden box drains.

Safe and Comfortable Chicken Coop.

The coop here illustrated will recommend and explain itself to poultry breeders. It is made to answer all requirements for safety, comfort and cleanliness. The



A SAFE CHICKEN COOP.

coop proper is shown at the right. It has a movable floor, which should not rest upon the ground, but upon cleats inside so as to be drawn out to clean and sun. Then put back with dust or litter. Fig. 1 is a movable door, which slides down when chicks are closed up for the night, and when not, it may be taken out and laid upon the lath run, 4, which is made so as when not in use it fits over the coop, thereby taking less room. There are two ventilators in each end of coop, covered with wire screen inside, and a little wooden slide outside, which can be regulated according to weather, the door being fastened by hooks and strips, which also keeps run in place. If painted it will last a long time. Mrs. V. W. Griblin, who advises all in conclusion to make them during odd winter days, in Practical Farmer.

Vegetables for Poultry.

It is not necessary to cut up potatoes, carrots or beets for poultry. Put them in the feeding places, cut in half, and the fowls will pick them to pieces. It is well to mention that if dark yolks in eggs are desired, feed carrots, and the yolks will be colored a deep yellow. The color of the yoke does not indicate quality, but there are some who prefer the dark color. Vegetables may be given poultry, and also tubers, without undergoing unnecessary labor for that purpose.

Substance in a Shell.

The Czar is very fond of eggs and eats large quantities of them. He thinks poison could not be secreted in them without detection, though he is startled to find that by pricking them with poisoned needles aconite could be placed in them.

A Horse Census.

Horses in the world presumably number about 75,000,000 head, of which 17 millions are credited to North America.

SOFT BACON.

Some Hints That May Be of Value to Hog Raising Farmers—Prof. Day's Notes on O. A. C. Experiments.

As Canadian packers have recently had a great deal of trouble with what is known as "soft bacon," perhaps a few notes on the subject may prove of interest to many farmers, writes Prof. Day of the Ontario Agricultural College. One of our leading packing houses makes the statement that during the months of May, June and a part of July of the present year the number of soft sides ranged from 20 to 40 per cent. of the whole. This means that Canada placed upon the English market this year a large quantity of inferior bacon, and though this bacon was not misrepresented, but was sold strictly upon its merits, at the same time it was Canadian bacon, and tended to bring discredit upon Canadian bacon as a whole. It requires no argument to convince any intelligent man that the condition of affairs just described means an ultimate loss to the farmer, because when our packers meet with losses of this kind their only remedy is to pay lower prices. It is therefore a matter of great importance, not only to the packer, but more especially to the farmer, that less soft bacon should be placed upon the market; and the problem of how to produce firm bacon should be carefully studied by every man who has a pig to sell.

Soft bacon does not mean fat bacon. It means a soft condition of the fat, which develops while the bacon is in the salt, and reduces the value of a side according to its degree. An absolutely soft side is comparatively worthless, and between this condition and firmness there are all shades and degrees of tenderness. Sometimes softness is noticeable before the bacon is put into the salt, but apparently firm sides frequently come out of the salt decidedly tender or soft.

Various speculations have been indulged in regarding the cause of softness. Corn, clover and lack of exercise are perhaps the chief things which have been blamed, but there is considerable diversity of opinion regarding the matter. For some months past experiments have been in progress at the Ontario Agricultural College to ascertain, if possible, some of the causes of softness, and to study methods of producing firm bacon. In these experiments the hogs are shipped directly to the factory, slaughtered, and the different groups packed separately in salt. When the bacon comes out of the salt it is carefully examined by experts, so that there can be no mistake as to its firmness or softness. Our investigations are by no means complete, but some interesting results have been obtained. Full details of the experiments will be found in the college report of 1898, but the following are some of the principal points brought out by the work up to date:

1. Though corn has been commonly blamed for procuring soft bacon, it apparently has no evil effects when used for finishing hogs that have had plenty of exercise until they reach 100 pounds live weight.

2. Neither does corn appear to cause softness when used for hogs that have had no exercise, but have been fed skim milk with a mixed grain ration until they reach 100 pounds live weight.

3. What has been said of corn may also apply to rape, when a two-thirds meal mation is fed with it.

4. Hogs confined in pens and fed wheat middlings during their early growth, and peas, barley and shorts during the finish period (without either skim milk or whey) have marked tendency to softness of fat.

5. Hogs given plenty of exercise and fed as just described produce firmer bacon than those confined in pens and fed the same ration.

6. The evil effects arising from lack of exercise can be overcome by the judicious feeding of whey or skim milk with the meal ration. From two to three pounds of whey or skim milk to a pound of meal will be satisfactory.

7. Whey and skim milk appear to have a greater influence than exercise in producing firm bacon.

8. Unthrifty hogs are more likely to produce soft bacon than growthy, well-fed hogs.

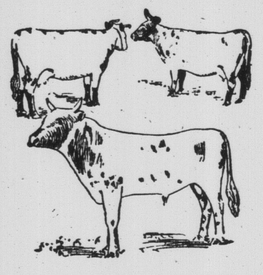
The influence of whey and skim milk in these experiments was especially marked, not only in making rapid and economical gains, but also in producing a fine quality of bacon, in spite of lack of exercise. While corn produced firm bacon when used for finishing well-grown hogs, it must not be assumed that it will not cause softness when used under other conditions. Its influence on younger animals has yet to be tested. In Danish experiments corn was found to be decidedly injurious to firmness when fed to very young animals.

It is to be hoped that feeders of hogs will carefully study this question of producing firm bacon, for it is a matter of vital importance if we are to retain our profitable English trade.

A Group of Ayrshire Cattle.

The Ayrshire cattle in the illustration are the property of Mr. A. Terrill, Wooler, Ont. Their description is:

The cow to the left is Wooler Lass 538, now 14 years old, while the one to the right is her daughter, Maggie 1116, 12 years old; they are both rich, deep milk-



A GROUP OF AYRSHIRE CATTLE.

ers, and also have been very successful in the show rings.

The bull is Dominion Lad, 1802; sire, Dominion Chief, 1214; dam, Amy 1861, by Earl of Fife 584. He won first prize in 1895, and second in 1896, at the Toronto Industrial Exhibition. At the local shows he has been very successful at capturing red tickets. He has proved himself a fine stock getter.

Feed for Eggs or for Meat.

There is no advantage in keeping the laying hens along with those you wish to market. The food suited to the two classes is altogether different.

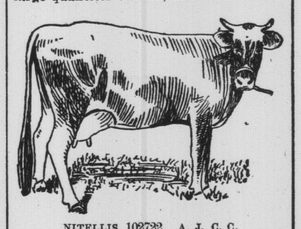
QUARTERS FOR PIGS.

Should Never Be Where Other Stock Is Kept—Keep Them Warm.

Whenever a barn has a barn basement, as all should have, in that should be fixed the winter quarters for the hog. As there is a strong, disagreeable smell from the pigpen, the basement should not be where other stock is kept, and of course not near the house. Not only horses and sheep, which are dainty in their feeding, but even the cow, which is less affected by foul odors, will refuse to eat food that has been where the stench from the hog-pen could get at it. Yet we have known farmers to allow hogs to run in the same stable with cattle and horses, and then wonder why the latter so often get "off their feed," and lose flesh. The hog alone will thrive under such circumstances, though even the hog in its effort to keep warm will crowd close around the larger animals to gather heat from their bodies. In this way the hog is apt to be stepped upon or kicked, so that the practice is not best even for him. The pigs' winter quarters should be made warm and also light, having a wall on the south side with large double windows in it through which the winter sunlight may stream. If all the other sides are walled tight, and a bunch of chopped straw is put in one corner, the pigs will make their nest in that and sleep at night, but in sunny days they will huddle together where the sunlight can fall upon them. This matter of sunlight has much to do with the healthfulness of breeding sows and the successful rearing of their litters, especially those farrowed in early spring.—American Cultivator.

A Veritable Butter Machine.

Hoard's Dairyman says a comparison of the several illustrations, with the record of the animals, shows how universally the pronounced dairy type is accompanied by the ability to assimilate large quantites of food, and to return a



NITELLIS 102722, A. J. C. C.

large percentage of it in the form of butter. The cow here illustrated, ate, in one week, 161 pounds of ground feed, together with grazing on orchard grass, clover and oats. The cost of the food consumed would not be over $1.10, and for this she returned 16 pounds of butter worth, at 16½ cents per pound, $2.64.

If the skim milk is assumed to pay for the labor, the net gain from this cow is $1.54 for the week; surely a large return for the amount invested in feed. She has the true dairy form one would expect from such a record. There are no straight lines about her; the back shows the high pelvic arch, while the large udder and milk vein, the large capacity for storing and digesting food, all show a machine especially adapted for the production of milk and butter.

Attitude of British Buyers.

British retail merchants whom I met frequently said they heard a decided preference expressed by their customers for things Canadian and things colonial, says Prof. Robertson. However, when the retail buyer went to the wholesale warehouse of the importer to select goods for the week, I think he left his preferential sentiment outside of the warehouse and out of the bargain. As far as I could learn, he buys only what he considers the best value, no matter where the goods come from. However, when he did buy Canadian products, he added to his shop talk for his customers the fact that they were Canadian. That was accomplishing something, as it helped to establish a demand from the consumers for Canadian products, when they liked those which they had received. A preference for buying a product by a consumer may have a sentimental basis as well as a purely business one, and as far as a preference is expressed by those consumers, it will lead retail buyers to give a preference in the same direction when making their purchases.

When one analyzes what is meant by the expression "a market," he discovers that it is usually a name for an exchange of commodities. Money is now used as the medium of exchange for facilitating the transactions of marketing. The great part of the population in Great Britain is interested in the exchange of manufactured products for food products. To accomplish that to their own advantage they are disposed to give a preference to the food products from those countries which take their manufactured goods in exchange. Further information on the benefits that would accrue to them, as consumers of food products and producers of manufactured articles, by giving a preference to the food products and from their own best customers, might be imparted to them to their own advantage. Their susceptibility to education is not always in proportion to their need.

Water Horses Frequently.

It is not natural for the horse to go long without a drink of water. His stomach is small and cannot hold a water supply for a long time. Watering morning, noon and night when at work in summer time is none too often. If the work is very heavy two tablespoonfuls of oatmeal stirred in the pail will make the horse drink better, and will also prevent so much cold water from injuring his stomach. It is a mistake to suppose that a horse or any other domestic animal prefers to drink water only a few degrees above the freezing temperature. If it is lukewarm the horse will drink more freely and the water will be less apt to injure him.

Increased Egg Production.

Doubtless the largest profits from the farmers' poultry yard will always be those arising from the sale or use of eggs. The egg is nearly always cash. It comes nearer to a circulating medium than almost any other thing the farm produces. The demand for strictly fresh eggs seems never to be fully supplied, except in the immediate locality where the eggs are produced. The farmer that produces eggs knows that he can always sell them for cash, and that usually there is far more profit in the exchange than is the case with any kind of flesh. The production of eggs is increasing from year to year, but not more rapidly than the demand.

BODICES.

Pretty Corsages For Theater, Concert and Other Wear.

For theater and concert wear bodices consisting of an embroidered and slashed bolero over a scant blouse are liked by slender women. The blouse effect at the back is no longer seen, as it has an undressed appearance which militates against elegance.

Velvet and silk alone are employed for separate bodices, woolen goods and cloth, however elaborate, being inadmissible.

To have a skirt and bodice belonging together is more fashionable than to have them unlike. Nevertheless the black silk or satin skirt, with a colored waist, is still used for the theater, where the upper part of the figure is in chief evidence.

Coat bodices, open in front, have removable vests and plastrons, which admit of many variations in the costume. An-

MORNING JACKET.

other means of securing diversity with a plain bodice is to wear over it a sort of fichu, which may be draped in many different ways. Silk or mousseline de soie is employed for these fichus, which are fastened in front, at the side or on each side of a middle plastron, with choux of satin and jeweled ornaments.

Today's illustration shows a very attractive morning jacket composed of plaid silk. The back is gathered in to the figure, but the front is loose. The square yoke of velvet harmonizing with the colors of the plaid is bordered with galloon, having an embroidered design of black on color, and the epaulets match the yoke. The sleeves are of plaid, finished at the wrist with bands of galloon and plaitings of plain taffeta, similar plaitings trimming the yoke and epaulets. The body of the jacket is also bordered with galloon and plaitings. JUDIC CHOLLET.

OUTER GARMENTS.

Jackets, Capes and Mantles and the Materials Used For Them.

In the matter of outside wraps exceptional latitude is now allowed by fashion. Jackets, capes, redingotes and short and long mantles are all worn and each has many variations. Among jackets alone, for instance, there is great diversity. Some have very short basques, others basques of somewhat greater length, entirely covering the hips, while still others extend to the middle of the skirt. Both square and round corners are worn and single and double breasted effects. Some coats are fastened with a fly; others have large, ornamental buttons. High, flaring collars are seen, but are less fashionable now than the regular coat collar and lapels, which may be faced with velvet or not. With the high collar only one revers is used.

Cloth of various kinds, heavy cheviot and shaggy goods are all employed, but

GIRL'S COAT.

the last named materials are less fashionably worn than smoother goods. Most nice jackets are lined throughout with silk or satin, but jackets of double faced golf cheviots, different on the two sides, require no lining. The wrong side of the cheviot (which is usually plaid, the right side being of solid color) is used for the lapels, collar, revers, cuffs and pocket flaps, and twisted fringe to match is sometimes added.

The girl's coat illustrated is of plaid cloaking. It has a circular ruffle around the front, headed by woolen fringe, and this ruffle passes up the front, forming coquilles which show the plain side of the goods. A large capuchon covers the shoulders. JUDIC CHOLLET.

Her Friend.

They had been talking of the war hero.

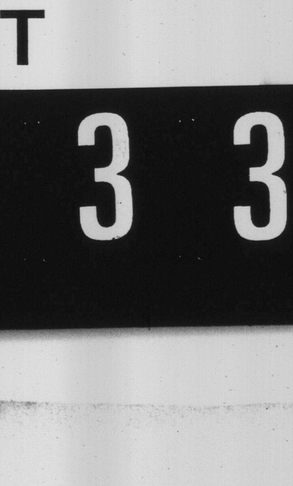
"When he passed through our town," said the blond triumphantly, "I kissed him."

"Quite likely," answered the brunette, "but I never have found it necessary to take the initiative in such matters."—Chicago Post.

BALL GOWNS.

Nondancers Are Wearing Heavy Fabrics and Long Trains.

Ball gowns differ greatly according to the age of the wearer and her intentions as regards dancing. For women who do not dance velvet, damask, brocade and satin broche are all used, and the skirt is made with a slight train or even decided-



EVENING BODICE.

ly long. To give fullness to the foot flounces of lace, mousseline de soie or of plain satin matching the tint of the gown are added.

Very tight bodices of the same material as the skirt are most fashionable, and the sleeve or epaulet is often entirely omitted, being replaced by a string of pearls, a garland of flowers or a band of ribbon, with a tulle ruffle.

Velvet ball gowns are sometimes very dark in tone and are enlivened by a tablier of guipure, flounces of lace, embroidery in silk and beads or panels of painted satin.

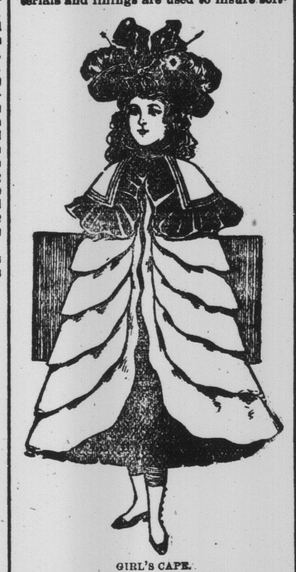
Princess gowns are the order of the day, and rich tissues having large designs compose very beautiful costumes of that class.

The sketch shows a pretty arrangement for an evening bodice. Over a full baby waist of pale pink silk, which has a round decolletage and several rows of shirring, is a sort of sleeveless vest of green, rose and silver broche silk which is much cut away and fastens at the left side under a rosette of dark green satin. The pink silk undercorsage has full puffed sleeves, and the bodice may be worn with a plain pink or a broche skirt. JUDIC CHOLLET.

VARIOUS NOTES.

Interesting Items Concerning the Wardrobe For This Winter.

Long, curved capes, which are the most elegant and newest wraps of the season, are cut in to the figure at the back and are finished with one or more scant circular ruffles, which follow the line of the rounded fronts to the neck. Flexible materials and linings are used to insure soft-



GIRL'S CAPE.

ness of the folds. Fur, velvet and passementerie in high relief form the decorations. With these wraps a trimmed skirt is indispensable to carry out the effect.

Louis Seize knots of narrow velvet or ribbon stiffly wired to preserve the form are now everywhere, decorating evening gowns and for millinery purposes. For the theater one of these bows, with a little bunch of tulle, is considered a quite sufficient bonnet, as it gives the effect of a head covering while offering no obstruction to the view.

Velvet plays an important part among bodices for theater and concert wear and is made richer by the addition of embroidery and lace.

The girl's cape illustrated is composed of five circular ruffles of suede cloth, with a pelerine of the same material, ornamented with rows of stitching and edged with a circular ruffle of maroon velvet. There is a high turnover collar faced with velvet. The hat of maroon velvet is trimmed with ruby plumes and ruby velvet.

JUDIC CHOLLET.

Objected to Poetry.

Says The Advocate of India, Bombay: At the Madras high court one Bonsmali Naik, a temple servant, appealed against the sentence of death passed on him by Mr. Wolfe Murray, the sessions judge of Ganjam, for having murdered one Keshatria Niak, who succeeded the accused after he was dismissed from his appointment. The accused got rid of his rival by throwing him into a well, so that deceased died of asphyxia. In the course of his judgment the sessions judge quoted the following couplet from W. S. Gilbert's "The Wreck of the Nancy Bell:"

He up with his heels.
And smothered his squeels.

Their lordships, while confirming the conviction and sentence, observed that the sessions judge ought to have used serious and vehement language in disposing of a serious and grave crime and was not justified in quoting the couplet he had.

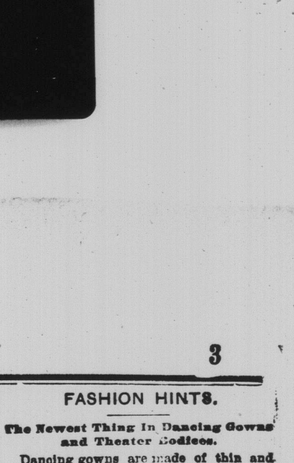
FASHION HINTS.

The Newest Thing In Dancing Gowns and Theater Bodices.

Dancing gowns are made of thin and delicate tissues and are short compared with other gowns. Nevertheless they must touch the ground all around. If it is desired to use richer fabric, this is employed to form a tunic only or a princess gown much cut away at the foot, the lower part being replaced by flounces of lace or mousseline de soie. In all cases the bodice must match the skirt.

Fur, if it is not too heavy, is again used on ball gowns and is often very effective as a border for the decolletage.

For the theater a skirt of black silk or satin is still admissible as an accompaniment of a corsage of light or bright silk. The corsage is, however, quite transformed from the former fluffy blouse. It is now more or less loose fitting and less exuberant in ornamentation, the general



MORNING JACKET.

lines being smoother and flatter. The coat bodice and the bolero, with a full vest, are both much liked.

A picture is given of a morning jacket of Louis Seize silk in black and green. It is tight at the back and loose in front and has revers of green satin with applique lace flowers. There is a square collar to match the revers, and lace surrounds the collar and the revers and forms coquilles on the shoulders and down the front. A flounce of lace finishes the basque, and lace ruffles edge the green satin cuffs. A ruche of embroidered gauze encircles the neck, and there is a cravat of the same. A green satin bow with long ends closes the jacket. JUDIC CHOLLET.

FASHION HINTS.

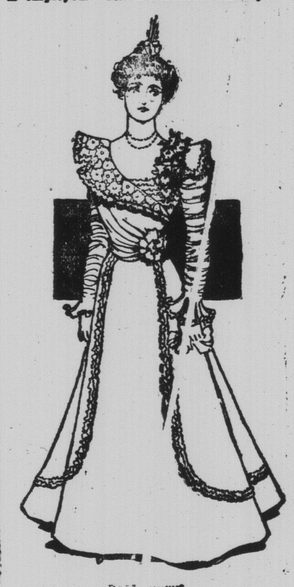
Various Accessories of the Fashionable Toilet—A Ball Gown.

Women of small, dainty figure make a point of having all their personal belongings upon a similar scale. The visiting cards, the prayer book, the pocketbook, the watch, are all diminutive, and daintiness and delicacy characterize the bedroom and dressing arrangements also.

Veils are often worn to match the hat, but the result is sometimes disastrous to the complexion. Red, green, yellow and blue veils are exceedingly unbecoming, but black, white, gray and golden brown are usually favorable.

Boas of white or colored gauze or liberty silk, shirred and used alone or mingled with feathers, lace and ribbons, are attractive for theater and ball wear.

The fashion of having but one revers seems to be gaining more and more favor. The ball gown shown in the illustration is a good example of how the single revers is employed. The material is lemon yel-



BALL GOWN.

low taffeta, and the skirt is trimmed in redingote form, with puffings of white mousseline de soie. The bodice, which is crossed and draped at the left side, has one large revers of guipure bordered with a puffing of white mousseline de soie, which continues to form a bertha across the back and an epaulet for the left shoulder. Horizontal puffings of mousseline de soie trim the left side of the waist, and there are transparent sleeves of mousseline de soie. The belt is of lemon velvet, with a chou at the left side. A thick garland of violets crosses the left shoulder. White gloves complete the costume.

JUDIC CHOLLET.

Jasmine Pipestems.

In Turkey the jasmine is extensively grown for the manufacture of pipestems. For this purpose the stems of the growing plant are trained with the greatest care until they have attained the proper length and size. The bark is protected by a wrapping of varnished linen or calico. Two or three times a year this will be taken off and the bark will be treated to a citron juice bath. This is said to give it the light color so much sought after. Some of these pipestems are from 10 to 18 feet in length and bring as much as $100 each.