

SUGGESTIONS FOR TREATING THE COLTS



Fine Work Team, Gentle and Strong.

Some breeders are bold enough to castrate their own animals, still more employ a man who makes a living as a gelder, but does not pretend to be a veterinary surgeon. The danger in castration is in rupture. So long as the testicles are in the purse, and their cords are occupying to a great extent the orifices in the belly the obstruction into the scrotum of a small knuckle of intestine may be overlooked unless a very careful examination is made; indeed it may then escape the intending operator's notice. If the colt has been well fastened and placed upon his back, remaining there for a minute or two, as during this time the small portion of gut will often slip back into the abdomen. For this, among other reasons, an old hand will prefer to have the animal on his side while making an examination. Some will squeeze the larynx to make the animal cough by way of a test. If another person does the squeezing (as for wind patients of adults), the castrator's fingers upon the cords of the testicles will tell him of a bulge and he will then exercise special precautions. It is far better to let the colt get up again and sacrifice the time than to proceed without all necessary appliances. Ruptured colts should never be entrusted to gelders without anatomical knowledge, or not possessing a reputation for operating upon such cases. The animal should be prepared by long fasting, placed upon his back, rendered limp by the inhalation of chloroform, and the testicles removed while the horse is insensible and unlikely to struggle. The veterinary surgeon may choose to put in two or more stitches of soluble material across the orifice now no longer partly occupied by the cord. If his hands and all things used by him have been rendered antiseptic this will probably be the best plan. There will be just enough adhesive inflammation set up by the sutures to

make a plug and stop the escape of the gut afterwards. The suturing material itself will be dissolved and absorbed in a few days. This suturing material is at once a great gift to the surgeon and a danger if he trusts it too much. It may be absorbed in forty-eight hours before sufficient or sufficiently strong plastic material has been thrown out to guard the entrance to the abdomen, or exit for the bowels as we fear it might prove. A further precaution may therefore be taken by putting a few stitches of insoluble silk through the empty purse rather close up to the belly. This should be well saturated with an antiseptic as we do not want a formation of pus, although we may have to leave it for three days or more, if the subsequent swelling outside the belly does not satisfy us that it is safe to remove these outside stitches. Unless any foreign substance has gone in while operating, there is apparently little danger of peritonitis or other ill results. There are other methods of operation the details of which more concern the practicing veterinary surgeon than the horse breeder, who should neither attempt the performance himself nor let another whom he cannot fully trust. It is to put our readers on their guard against the reckless assumption that every colt is normal, and that no such precautions need be taken that we offer these suggestions, there being no use in idle regrets when an hour after castration a colt is found with his bowels hanging out and beyond assistance.

One may say that such cases have been successfully dealt with, but the delay is nearly always fatal. If the animal can be secured and the bowel held up by a sheet saturated with a disinfectant until the veterinary surgeon arrives, it may be possible to return that portion of intestine and retain it while anticipating subsequent inflammatory troubles by proper treatment.

left alone. Occasionally a wound is such that the edges can be held together by means of bandages. If this can be done there may be considerable advantage in doing so, but these wounds are rare. Bandages should be changed frequently and the wound kept clean. Maggots may be prevented in small wounds by smearing the following mixture around the border. Turpentine, one part; tar, three parts; fish oil, two parts. If a wound becomes infested with maggots, use chloroform by spraying or sprinkling the parts by throwing it from a sponge.

GOOD TREATMENT OF ANIMAL WOUNDS

Few Injuries Are Materially Benefited Unless Treated by Professionals.

By DR. M. H. REYNOLDS, V. S. Various preparations of turpentine, alcohol, vinegar, carbolic acid, irritating oils, and even mineral acids are frequently used in the treatment of animal wounds and then because the patient recovers in spite of barbarous treatment, people erroneously conclude that the medicine cured. Bleeding can usually be checked quite easily. If the blood is from a large number of small vessels, hemorrhage can be checked and finally stopped by the means of ice and, by very hot or very cold water, or the wound may be packed in clean cotton or oakum and tightly bandaged. In case a large blood vessel is severed the artery may be secured by means of small forceps or even a hook made by bending a pin or piece of wire. In some cases hemorrhage can be easily controlled by a tight bandage placed above or below the wound. If the blood flows in a steady stream the bandage should be on the side farthest from the heart. If it flows in jets the bandage should be tied between the wound and the heart. Comparatively few wounds are materially benefited by sewing, bandaging or washing except in professional hands. If the wound is made lengthwise of the muscle there may be considerable advantage in holding the sides together by sewing. No special form of needle or thread is necessary except that both should be clean and the latter should be of a reasonable size. A darning needle and ordinary cotton thread will do very well in an emergency. If the wound is made across the muscle and gapes widely it is usually unwise to sew, for the stitches will cut out in a few days and make the scar much worse than if it had been

FEW TIMELY HINTS FOR POULTRY YARD

Pleasure and Profit Found in Fowls When Rightly Fed and Sheltered.

Rightly bred, rightly fed, warmly and cleanly housed, the fowls at Snow-Bird poultry yards are a never failing source of pleasure and profit. The ground feed if compounded at home was composed of one scoopful of wheat bran to one of chopped corn and oats equally halved. Vegetables were substituted for the summer-time green food. Cabbage hung by the roots within easy reach, mangel-wurzels split in half then impaled on spikes so the biddies might pick the flesh from the outer covering in a cleanly manner, with added succulency in the form of chopped onions and uncooked potatoes together with clover-chaff and dried leaves as scratch material and roughage, minimized the grain bill and kept the fowls comfortable, vigorous, productive. Meat was either ground green bone or beef meal. If the former, one-half ounce to the fowl daily, if the latter, it was hopped fed, they eating as much as desired and whenever inclined to. A tri-weekly cleaning of drop boards; a weekly spraying of perches; a semi-annual house-cleaning, together with the usage of effective insecticides kept down the vermin. abundance, where cattle can get it without wading through mud, belly deep, is favorable to good gains. Probably the most common trouble in the feed lot is scours. When a steer suffers from scours the feeder is losing money. The most common causes of scours are over feeding, irregular feeding, changes of feed and sometimes too much salt. A handful of shelled grain is always more effective than a club in inducing a pig to travel where you want it.

Construct a water-tight trough 8 feet long, 14 inches deep and 24 inches wide. Fill this two-thirds full of the formalin solution, which has been made up by dissolving one pint (a pound) of 40 per cent. formaldehyde in 40 gallons of water. Into this pour slowly the seed wheat until the trough is nearly half full of grain. Then stir thoroughly with a long-handle shovel in order to float to the surface any smut balls that may have been carried in by the grain. These should be skimmed off and destroyed. Leave the grain in the solution about one-half hour. It may then be lifted out and piled up on a granary floor or on the bottom of a wagon box and covered with moist sacks, where it is left over night. On the following morning it will be ready to sow. If it is desired to sow the grain in a dry condition, it will be necessary to spread the treated seed out on the floor to a depth of two or three inches, stirring frequently in order to hasten the drying process. If the seed is sown wet, allowance should be made for its swollen condition by setting the drill to sow a larger quantity per acre. The oat smut, another destructive disease, is widely distributed, some fields having shown as high as 30 per cent. of smutted heads. Estimated average annual loss is about two per cent. of the crop. This smut is most easily noticed a little before the grain is ripe, when smutted plants are found to be shorter and to stand more erect than sound ones. In place of the kernels there are dark masses of smut dust which, sometimes, are covered by the chaff or glumes and sometimes are left fully exposed and are then soon

UNCLE SAM, M. D. Specialist in Cereal Diseases

Prepared by the United States Department of Agriculture. The total annual loss from cereal diseases in the United States is estimated to be \$45,000,000. Moreover, over one-half or nearly \$25,000,000 of this loss is caused by preventable diseases, remedies for which have been developed and placed in usable form for the farmers by state and federal authorities.

The department of agriculture, through the office of cereal investigations of the bureau of plant industry, has specialists in grain diseases working in laboratory, field and greenhouse in an effort to solve many scientific and practical problems of disease control which confront the grower of cereals. The state experiment stations of Minnesota, Kansas and Washington are co-operating with the department with a view of controlling and eliminating plant diseases that are causing such an enormous loss in the grain-fields. In addition, a well-equipped laboratory is maintained at Washington, where microscopic, cultural and other studies of the disease-causing organisms are carried on during the greater part of the year.

While rusts and smuts of cereals are perhaps the most widely distributed and most harmful diseases which have been studied, there is another class of "cases" which our plant doctors must now consider. These diseases are commonly called scabs, wilts, blights, and a number of other popular names. They are nearly all of them properly called soil diseases, because their spores have the power of living in the soil, as well as on the straw, leaf or seed of their host plant. They are caused, as is the case with the rusts and smuts, by parasitic fungous plants which get their nourishment from our cultivated green plants.

Among the preventable cereal diseases is the stinking smut, or bunt in wheat, common in all grain-growing sections and especially troublesome in the Palouse country of the northwest, where it is harder to control, owing to the fact that it lives over winter in the soil. The estimated average annual loss is two per cent. of the crop. This smut is easily distinguished in the field when the grain is almost ripe. The smutted plants are usually slightly stunted and the heads stand more erect than the heavy, sound heads. The chaff is spread apart more or less by the dark, swollen kernels, giving the head an open appearance. When the tough membrane, or skin, of such a kernel is broken, a dark, smeary, dust-like mass is disclosed which has a peculiar fetid odor like that of decayed fish.

The smut can be controlled and practically gotten rid of by any one of the seed treatments which have been worked out and recommended for a number of years by the state experiment stations. Of these the formalin treatment is probably the best. There are several ways of applying this treatment. It may be either sprayed on the grain or the grain may be soaked in the solution. The following method of treatment is recommended by the Washington experiment station: Construct a water-tight trough 8 feet long, 14 inches deep and 24 inches wide. Fill this two-thirds full of the formalin solution, which has been made up by dissolving one pint (a pound) of 40 per cent. formaldehyde in 40 gallons of water. Into this pour slowly the seed wheat until the trough is nearly half full of grain. Then stir thoroughly with a long-handle shovel in order to float to the surface any smut balls that may have been carried in by the grain. These should be skimmed off and destroyed. Leave the grain in the solution about one-half hour. It may then be lifted out and piled up on a granary floor or on the bottom of a wagon box and covered with moist sacks, where it is left over night. On the following morning it will be ready to sow. If it is desired to sow the grain in a dry condition, it will be necessary to spread the treated seed out on the floor to a depth of two or three inches, stirring frequently in order to hasten the drying process. If the seed is sown wet, allowance should be made for its swollen condition by setting the drill to sow a larger quantity per acre.

Blow about by the wind, leaving the stalk of the head bare. Oat smut may be prevented by a similar seed treatment to the one given for the stinking smut of wheat. There is not so much danger from smut balls remaining in the treated seed, but if any smut masses are seen they, of course, should be skimmed off and destroyed just as in the case of wheat smut.

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The covered smut of barley is another cereal disease with an estimated average annual loss of two per cent. of the crop. This smut is most noticeable several days after the barley has fully headed out. The smutted heads are darker in color than sound heads and the kernels are composed of greenish-black masses of smut. These are not blown away by the wind but remain until the grain is harvested and threshed, when the smutted heads are broken up. Many of the smut masses are not blown out by the threshing machine but remain with the grain, smearing it with smut.

The spores of the smut get on to sound seeds and are lodged in cracks and crevices of the seed coat until the seed germinates in the spring, when the young smut plant also begins to grow inside of the barley plant. This smut also can be prevented by treating the seed with formalin in the same manner as for the stinking smut of wheat and oat smut.

The kernel smut of sorghum is serious in crops of kafir, broomcorn and the sweet sorghums (cane), particularly in the arid regions of the West and Southwest. It is not so easily observed by the farmer as are most of the other grain smuts. The young smut head takes on a gray or whitish appearance, and as it develops the dark brown or black, usually smut masses are not broken and blown about to any extent in the field but remain as they are formed until harvest and threshing time. They are then broken up and the smut spores get on to clean seeds, where they stay, just as in the case of stinking smut of wheat, until the seed is plighted and the spores grow and infect the young seedlings. As in the stinking smut of wheat, careful seed treatment will kill the smut spores on the outside of the seeds. The treatment recommended is as follows: Mix one pint (one pound) of full-strength 40 per cent. formaldehyde with 30 gallons of water and use this solution in the same manner as directed for stinking smut of wheat.

The loose smut of wheat is widely distributed wherever wheat is grown. The estimated average annual loss is one per cent. of the crop. This smut is most noticeable at the heading time of the grain. In smutted heads the kernels and chaff are replaced by dark sooty masses, which are soon blown away by the wind, leaving bare stems that are usually not noticed at harvest time. The smut matures and ripens its spores when the wheat is in bloom, that is, soon after heading time. The spores do not remain inclosed by the chaff, but are loose and are immediately blown about by the wind, fall on healthy wheat heads and some of them get on to the young ovary or seed of the wheat flower. Here they germinate and send little filaments or germ tubes into the young forming kernels. As the kernels grow and en-

large tiny smut plants are formed inside of them, but remain hidden and allow the kernels to develop and fill out like other seed.

The loose smut cannot be prevented by the ordinary formalin seed treatment, as it lives over the winter inside of the seed instead of on the outside of the seed coat. The only seed treatment which has proved to be a preventive for this smut is the hot-water treatment. This is a delicate operation for the average farmer to perform, as the death point of the wheat seed itself is so close to the death point of the smut in the seed that very accurate thermometers and careful handling are necessary.

The estimated average annual loss of loose smut of barley is two per cent. of the crop. The time of appearance and other characteristics of this smut are almost identical with the loose smut of wheat described above. This smut cannot be prevented by the formalin treatment because the smut passes the winter inside the seed. The hot water treatment will prevent it, but it is not recommended for the average farmer who must treat a large amount of seed in a short time at his busiest time of the year.

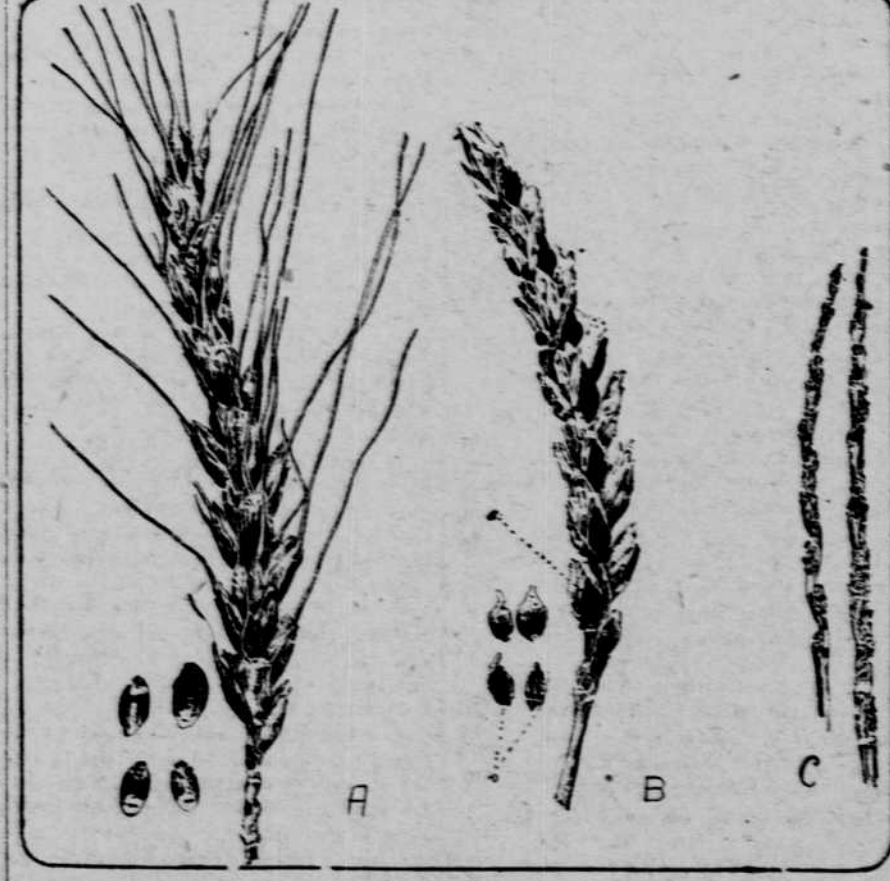
The study of corn smut is receiving considerable attention by the department. The losses are variable, being largely dependent upon the locality and the season, but are often serious. No adequate means of control are at present available, though it is known that the losses from corn smut are less where a rotation of crops is practiced and where care is taken not to feed smutted corn to livestock and then use the fresh manure on cornland, because corn smut spores pass through the digestive tract of farm animals uninjured and can live and multiply in the manure.

Each of the cereal crops has one or more kinds of rust affecting them. The black or stem rusts of wheat, barley and oats are the most serious. Each of these three crops has an early or so-called leaf rust, which nearly always is present, but seldom does serious damage. The rusts, as their name would indicate, first appear as reddish or yellowish spots on the leaves or stems of the grains. The stem rust forms long spots of this yellowish powder, which turn black as the grain ripens. It is this black rust stage with which most farmers are familiar and which they fear the most.

The rusts are perhaps the most serious of all cereal diseases, for no practical preventive measures are at present known, other than the use of wheats of the durum group, and the selection and breeding of new varieties resistant to rust. No seed treatment is of any use whatever, as the rust is an external parasite, not living over in or on the seed. Neither has any spray for the growing plants been devised which will give results at all in proportion to the cost of its application on a large scale. In fact, experiments carried on with sprays on small plots have not given very promising results.

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LOOSE AND STINKING SMUTS OF WHEAT. A, Normal Head of Wheat, Showing Kernels Below. B, Head of Wheat Affected by Stinking Smut, Showing Smut Balls at a. C, Loose Smut.

Fox a God in Japan. Hiet Takahashi, the quaint son of Nippon, who attends William Jewell college and labors betimes in the Advance office, is always talking interestingly to his fellow employes about his country and its customs and superstitions. Chief among the superstitions is the fear of the fox, which is believed to have supernatural powers. Thrones called "Inari Jimsha," in which the fox is enshrined as a deity, are numberless. The name of the deity written in Japanese characters signifies fox, and from this it came to be believed that the deity really was a fox. Its natural cunning is greatly enlarged upon and it is believed to be capable of misleading and deceiving human beings. Liberty Advance. Gabe—There goes a fellow who enjoys ill health. Steve—Enjoys it? What is he, a hypochondriac? Gabe—No, he's a physician.

One on Ginter. Jesse Carmichael was walking down town in New York with his friend, Bob Ginter. Bob was pulling industriously on a fat, dark cigar, and had succeeded in consuming about half of it, causing the covering to curl up with the heat. "What in thunder are you smoking?" asked Carmichael. "A fine cigar," replied Ginter. "Oh," said Carmichael, "I thought it was an umbrella."—Popular Magazine.

Cabling for a Doctor. An example of how the world has been reduced in size by the telegraph is forthcoming from Valentia Island, 17 miles off the west coast of Ireland. A woman was seized with illness, and the nearest doctor was on the mainland at Waterville. The Valentia cable operators sent a message to Waterville, and the doctor was on the island within two hours, landing amid the cheers of the islanders.—Cardiff Western Mail.

The Man and the Machine. "No, I don't want any more of your labor-saving machines," said Farmer Jones, reflectively. "I've had enough of 'em! Look in that cupboard. There's a typewriting machine in there. The missus spent all her egg and bunter money to buy that for me, 'cause I ain't so overhandy with the pen. Just look at the swindlin' thing!" "What's the matter with it?" said Farmer Brown. "Matter!" said the old man, indignantly. "Why, you can't even write your name with the confounded thing unless you know how to play the pianer or a church organ!" Truth from the Child Witanesses. "Children are always the best witnesses at this age," said Mr. Walter Schroder at a St. Pancras (Eng.) inquest, after hearing the evidence of a boy of twelve. "They are at an age when they have no desire to ransack the truth or diminish its significance. It is just a plain, simple tale they tell."

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Dancing Frocks for Sweet Sixteen



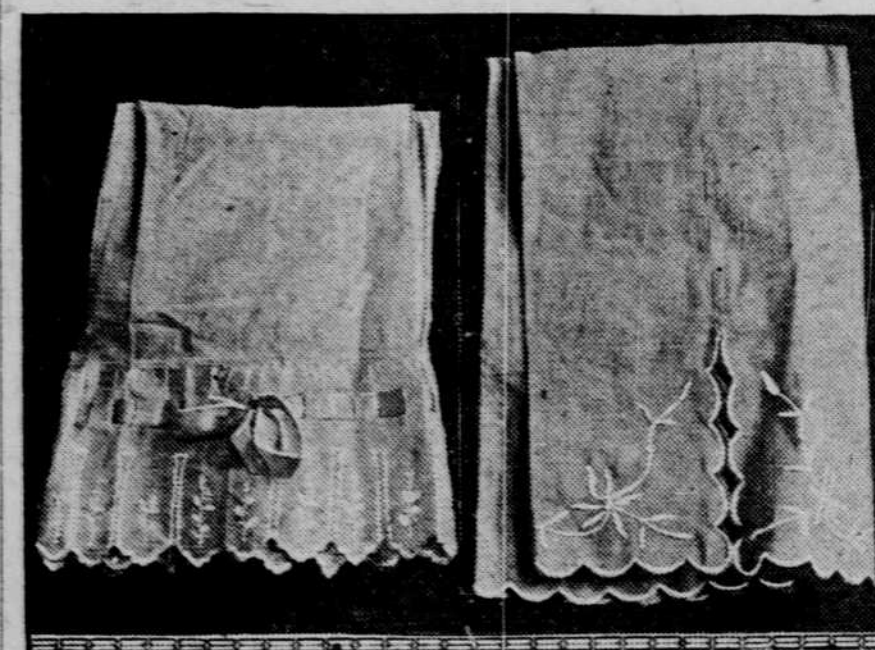
"SWEET SIXTEEN" must be construed these days to mean, in reality, sweet eighteen to twenty-four; for sweet sixteen of these days is a little too young to prove interesting outside her own circle of relatives or schoolmates. The two pretty frocks for a young girl, pictured here, are suitable designs for any of the festive occasions. It will be seen that they allow plenty of freedom for the frolicsome dances to which youth is just now so devoted. The materials are supple, and the skirts sufficiently full. For these fascinating dresses soft sheer fabrics are to be chosen. There are plenty of them. Voiles (plain or flowered), chiffon, silk or cotton crepes, wool or cotton challies, nets, chiffon taffetas and other light silks, crepe de chine, flowered mulles, besides numbers of novelties that have been brought out. Probably the two most satisfactory materials are chiffon taffeta and voile.

The frock with the accordion plaited skirt is worthy of some study. It is of cream-colored voile with girde of rose-colored moire ribbon and long ends crossed at the front. They are fastened there and brought to the back, where they tie in a bow with short loops under a narrow scant-founce of the material. This founce is double, having the effect of a hanging puff. Added to the girde at the back is a ruffle of the ribbon, giving the effect of a short basque finish. There is an apron of lace at the front, with bands extending upward to the bodice, over the shoulders and around the low neck. The sleeves are short puffs finished with double ruffles and lace. Very small flowers of narrow ribbon make a slender wreath which outlines the apron and bodice and follows the line of the founce at the back. Chiffon taffeta and lace are used, with a little plain chiffon for the second dress. The picture shows so plainly the composition that it hardly needs description.

The skirt of chiffon taffeta is narrow and extends to the calf of the leg. It is finished with a wide founce of lace and is caught up in front with two ribbon roses. There is a tunic, girde and tiny e-ton jacket of the silk, with underbodice and sleeves of chiffon in the same color as the silk. The tunic is finished with a pattern of light embroidery about the bottom, and the bodice is embellished with a big butterfly bow of the silk mounted above the waist line at the front. Each of the youthful wearers is provided with a strand of pearl beads for her neck and black satin slippers for her feet. These are simple and tasteful dresses, not at all expensive and entirely appropriate to young girls. Nothing more elaborate is to be considered for them.

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Petticoats With Hand Embroidery



HERE are two beautiful new designs in petticoats to which a little hand embroidery gives a touch of real elegance. The designs are simple and the work not of the kind which proves trying to the eyes. Now that Lent is here and our time is not too fully occupied it is a real pleasure to sit down to a little old-fashioned sewing. One of these petticoats is of white mainsook with a ruffle of batiste material stitched to the bottom. The ruffle is scalloped and buttonhole-stitched along the lower edge. It may be purchased with the edge ready finished. The buttonhole stitching is extended to form small panels. In each of the panels a spray of flowers, very simple and easily done, is embroidered. The sprays are not all alike; two or even three, patterns are used, or only one, according to the choice of the individual. The top of the ruffle is cut into short slashes, the edges carefully finished with the buttonhole stitch, and a satin ribbon threaded through these slashes by way of a dainty finish. Blue, pink, lavender or a soft gold color are shown in satin ribbons to be used for this purpose.

A practical petticoat to be worn with street suits is made of unbleached linen or chambray. Plain gingham also provide a suitable material. The petticoat is plain and narrow, about a yard and three-quarters wide. It is slit up at one side along a seam. The bottom is finished with a shallow scallop button hole stitched with a coarse floss. Two sprays of embroidery, placed at the sides of the slash in the skirt, finish its decoration. The embroidery is done in white. Stitches are long and easily done. Skirts of this kind are made up in blue, pink, lavender, tan, linen color and white. They are easily laundered. Worn with a fancy corset covered to which a foundation for white dresses in the new crepe-like fabrics which are not sheer but still allow a color to glow through them. But these durable and attractive petticoats are to be worn with utility dresses and are not made for those of airy fabrics, which will be used for other wear.

There is a certain satisfaction in hand-wrought undergarments, and a certain pride in one's own work which more than pays for the time spent upon such simple and practical garments. JULIA BOTTOMLEY. Extension Side Girde. Most effective of all the new fur-bishes for costumes is the extension side girde. So broad that it gives the very becoming Empire effect above the waist line, below that line it fits smoothly over the hips and lends to them the much-desired appearance of extreme slenderness. At the left side this girde extends into a single broad sash end-cut in one with the accessory—which tapers gradually toward the knee, where it terminates in a deep fringe. The girde, which obviously must be carefully fitted to the figure and skillfully boned into permanent shape, is most effective in velvet but often a very heavy silk is used and occasionally duvetyon or thick broadcloth. The choice of the fabric depends, of course, wholly upon the street or house costume with which it is to be worn.

Cleaning Piano Keys. Water should never be used to clean the keys of a piano, as it removes their polish. Rub them with a cloth dampened in alcohol, which will remove all yellow stains and make the keys perfectly white again.