

GROWING PROTEIN.

Dairymen Urged to Raise What Grain They Need.

In an interesting letter to The National Stockman F. A. Converse of New York expresses the belief that more than half the money put into grain for our dairy cows can be saved by raising the grain on the farm.

I have tried several ways of raising this crop and will describe the one most successful. Our rotation of crops is (1) clover, (2) corn for the silo, (3) potatoes, (4) oats and peas.

After the potatoes are dug they should be sown to keep the ground covered during the winter with a growing crop. As early as possible in the spring plow this rye under and fit the land thoroughly for the oats and peas.

Mix the seed, one bushel of White Canada peas to two bushels of oats, and put on 3 1/2 to 8 bushels of the mixture per acre, drilling it in rather deeply.

Three bushels of seed per acre should be used only where the land is very fertile and well cultivated. After the grain is sowed roll the field or go over it with a "clod crusher," followed with a weeder or smoothing harrow. Never leave a piece of grain just as the roller leaves it; always "roughen" it to hold the moisture.

Go through the oats and peas once a week with the weeder until they get so high you must stop. This will hasten the ripening of the grain and keep down the weeds, especially wild mustard, besides increasing the fertility by cultivation.

Just as the top begins to turn out the crop with a mowing machine and cure as you would hay. The advantages of the early cutting are: The straw is worth as much as timothy hay to feed, the peas will not shell in mowing and raking, and the grain cut thus early will fill out and be as plump and weigh more pounds to the bushel than it will if allowed to stand and mature before harvesting.

The grain is cut so green it cannot be cured out if cut with a binder, but with a mower it can be treated exactly as you would treat hay. When dry, it is ready to be thrashed, and we will get grain enough from one acre to feed a dairy cow one year.

In other words, on good land we can raise 50 bushels per acre, which will weigh 2,900 pounds, about the amount ordinarily fed to a dairy cow in 12 months, or an average of six pounds per day. The analysis shows that oats and peas have a nutritive ratio of about one to five. Of course this is more or less variable as the two crops mix.

On some land a person can sow more peas per acre. As a rule, I would say sow as many peas with the oats as will stand up and not lodge. Some years I have mixed them half and half with good results, but cannot depend on it.

As a basis of a grain ration for a dairy cow no grain is better or cheaper than oats and peas. To this cream gluten or cottonseed or linseed meal can be added in small quantities to suit the needs of the animal. As soon as this crop of oats and peas is taken out seed to clover. The land will be in a mellow, loose condition and can be fitted with a spring tooth harrow without plowing. Sow on the clover seed eight quarts to the acre and harrow in light.

I sowed this last year the first week in August and have good results. I heartily commend this plan of growing protein to the dairymen to stop that everlasting feed bill. When a farmer draws \$5 worth of milk to the creamery and draws back \$3 worth of grain, he has to do a lot of business to get much money from his dairy. Let our motto be to raise more and buy less.

Feminine Dairy Wisdom. Dorothy Tucker writes to Farm Journal as follows: Don't make the mistake of thinking that a large cow necessarily makes the most butter. It is a great error.

In the first place it takes much more to maintain the large cow, and in the second place she will probably not give any more or even as much in return as the smaller animal.

If you have an extra good dairy cow, you must remember that she is necessarily very highly organized.

She may be compared to a machine running at high speed and doing great work. All parts must be closely watched, everything must be kept in perfect condition, or the breaking down of the whole thing will be the result.

So it is with our best cows. They are not like the old no purpose cow, with little or no nervous system or high development. Great care must be given them at calving time, which is a critical period.

Allow no shocks or nervous excitement. Keep the bowls open to avoid a feverish condition.

Cut down on all heavy feeds for two or three weeks before calving. Give plenty of wheat bran with a small quantity of oilmeal.

After calving come up to full feed very gradually, avoiding sudden changes of all kinds. In fact, give her every care and attention that you would one of your own family.

Keep her warm. Warmth will double the yield of a cow on the same feed as compared with cold.

We have for a long time raised our calves on skim milk and flaxseed jelly; have raised them so that they were everything that could be desired.

Never turn calves in pasture the first year and never put them in the hog pasture.



SOIL MOISTURE.

Methods of Conserving It—Subsoiling, Plowing and Tillage.

Next to temperature moisture is probably the controlling factor in the growth of plants. The importance of a supply of moisture is most strikingly demonstrated in regions of deficient rainfall, where irrigation is necessary for the growth of crops (arid regions), but it is no less important in regions where the rainfall is usually considered sufficient for the needs of the crops (humid regions).

FIG. 1.—IN SOIL WITH HARD SUBSOIL. For this reason the following report of the department of agriculture on the conservation of moisture in the soil, as studied at various stations, is of general interest. Subsoiling is one of the important means. The Wisconsin station describes this influence substantially as follows:

Subsoiling increases the storage capacity of the soil for moisture and increases the rate at which water will sink into the soil, but decreases the rate at which it may be brought back to the surface. Subsoiling also increases the amount of moisture available to crops, since plants are capable of utilizing a larger proportion of the moisture present in loose, coarse grained soils than that in fine grained and compact soils.

In humid regions, as a recent bulletin of the California station points out, the soil as a rule is underlain at a comparatively short distance below the surface by a subsoil, which the roots of plants penetrate with difficulty and from which they can draw little nourishment.

The roots, therefore, spread out near the surface, and the plants require frequent rains or irrigation to sustain life. A suspension of either rain or irrigation for ten days or two weeks under such conditions usually results in injury to the plant. Under such circumstances subsoiling encourages deep rooting and thus enlarges the stock of water as well as plant food at the command of the plant.

In many parts of the region of deficient rainfall, as in southern California, plants, especially fruit trees, are capable of withstanding months of drought. This is claimed to be due to the fact that "in the arid region, as a rule, subsoils in the eastern sense do not exist. The soil is readily penetrable by the root systems of plants in humid and arid regions is illustrated in the accompanying figures. A glance at the figures system like Fig. 1 will stand in need of frequent rains or irrigation to sustain the vitality, such a one as Fig. 2 may have prolonged drought with impunity, being independent of surface conditions and able to perform all its functions out of reach of stresses from lack of moisture. It is equally clear that it is to the farmer's interest to favor to the utmost this deep penetration of the roots. This can be done in humid regions, to some extent at least, by thorough preparation and tillage of the soil, and, in case of fruit trees, by guarding against excessive surface fertilization. In arid regions frequent irrigation, it is claimed, encourages shallow rooting.

To prevent loss of water from the soil by evaporation it is necessary to check the rise of water by capillarity to the surface of the soil. This is accomplished to some extent by subsoiling, but in order that the work partly accomplished by the subsoiling may be completed and continued the surface of the soil must be kept covered with a mulch of loose, well tilled soil by means of frequent tillage.

Whether the best results in preventing loss of moisture from the soil in humid regions will be obtained by subsoiling, shallow cultivation or deep cultivation, is a matter of opinion.

FIG. 2.—IN SOIL WITH OPEN SUBSOIL. This soil will depend very largely upon the character of the soil and subsoil. The Kansas station found no essential difference in the moisture content at the different depths of soil that had been prepared in the spring by shallow plowing, by deep plowing and by subsoiling. In experiments at the North Dakota station on different methods of preparing soil and tillage for wheat the largest yield was obtained from land subsoiled eight inches below a six inch furrow.

The Niter Nuisance in Sugar Making. An Ohio maple sugar maker writes to The New England Homestead that in taking care of the niter nuisance he knows nothing better than the use of muriatic acid diluted as occasion demands. Another method in vogue by him is a thorough cleansing of pans and evaporators in the fall with the sorrest of wice. "The difficulties in making nice maple goods," he writes, "are as nothing compared to those of getting the product to the consumer for what it really is and is worth."

FIG. 3.—IN SOIL WITH HARD SUBSOIL. This soil will depend very largely upon the character of the soil and subsoil. The Kansas station found no essential difference in the moisture content at the different depths of soil that had been prepared in the spring by shallow plowing, by deep plowing and by subsoiling. In experiments at the North Dakota station on different methods of preparing soil and tillage for wheat the largest yield was obtained from land subsoiled eight inches below a six inch furrow.

The Niter Nuisance in Sugar Making. An Ohio maple sugar maker writes to The New England Homestead that in taking care of the niter nuisance he knows nothing better than the use of muriatic acid diluted as occasion demands. Another method in vogue by him is a thorough cleansing of pans and evaporators in the fall with the sorrest of wice. "The difficulties in making nice maple goods," he writes, "are as nothing compared to those of getting the product to the consumer for what it really is and is worth."

FIG. 4.—IN SOIL WITH OPEN SUBSOIL. This soil will depend very largely upon the character of the soil and subsoil. The Kansas station found no essential difference in the moisture content at the different depths of soil that had been prepared in the spring by shallow plowing, by deep plowing and by subsoiling. In experiments at the North Dakota station on different methods of preparing soil and tillage for wheat the largest yield was obtained from land subsoiled eight inches below a six inch furrow.

The Niter Nuisance in Sugar Making. An Ohio maple sugar maker writes to The New England Homestead that in taking care of the niter nuisance he knows nothing better than the use of muriatic acid diluted as occasion demands. Another method in vogue by him is a thorough cleansing of pans and evaporators in the fall with the sorrest of wice. "The difficulties in making nice maple goods," he writes, "are as nothing compared to those of getting the product to the consumer for what it really is and is worth."

FIG. 5.—IN SOIL WITH OPEN SUBSOIL. This soil will depend very largely upon the character of the soil and subsoil. The Kansas station found no essential difference in the moisture content at the different depths of soil that had been prepared in the spring by shallow plowing, by deep plowing and by subsoiling. In experiments at the North Dakota station on different methods of preparing soil and tillage for wheat the largest yield was obtained from land subsoiled eight inches below a six inch furrow.

The Niter Nuisance in Sugar Making. An Ohio maple sugar maker writes to The New England Homestead that in taking care of the niter nuisance he knows nothing better than the use of muriatic acid diluted as occasion demands. Another method in vogue by him is a thorough cleansing of pans and evaporators in the fall with the sorrest of wice. "The difficulties in making nice maple goods," he writes, "are as nothing compared to those of getting the product to the consumer for what it really is and is worth."

FIG. 6.—IN SOIL WITH OPEN SUBSOIL. This soil will depend very largely upon the character of the soil and subsoil. The Kansas station found no essential difference in the moisture content at the different depths of soil that had been prepared in the spring by shallow plowing, by deep plowing and by subsoiling. In experiments at the North Dakota station on different methods of preparing soil and tillage for wheat the largest yield was obtained from land subsoiled eight inches below a six inch furrow.

The Niter Nuisance in Sugar Making. An Ohio maple sugar maker writes to The New England Homestead that in taking care of the niter nuisance he knows nothing better than the use of muriatic acid diluted as occasion demands. Another method in vogue by him is a thorough cleansing of pans and evaporators in the fall with the sorrest of wice. "The difficulties in making nice maple goods," he writes, "are as nothing compared to those of getting the product to the consumer for what it really is and is worth."

FIG. 7.—IN SOIL WITH OPEN SUBSOIL. This soil will depend very largely upon the character of the soil and subsoil. The Kansas station found no essential difference in the moisture content at the different depths of soil that had been prepared in the spring by shallow plowing, by deep plowing and by subsoiling. In experiments at the North Dakota station on different methods of preparing soil and tillage for wheat the largest yield was obtained from land subsoiled eight inches below a six inch furrow.

The Niter Nuisance in Sugar Making. An Ohio maple sugar maker writes to The New England Homestead that in taking care of the niter nuisance he knows nothing better than the use of muriatic acid diluted as occasion demands. Another method in vogue by him is a thorough cleansing of pans and evaporators in the fall with the sorrest of wice. "The difficulties in making nice maple goods," he writes, "are as nothing compared to those of getting the product to the consumer for what it really is and is worth."

FIG. 8.—IN SOIL WITH OPEN SUBSOIL. This soil will depend very largely upon the character of the soil and subsoil. The Kansas station found no essential difference in the moisture content at the different depths of soil that had been prepared in the spring by shallow plowing, by deep plowing and by subsoiling. In experiments at the North Dakota station on different methods of preparing soil and tillage for wheat the largest yield was obtained from land subsoiled eight inches below a six inch furrow.

The Niter Nuisance in Sugar Making. An Ohio maple sugar maker writes to The New England Homestead that in taking care of the niter nuisance he knows nothing better than the use of muriatic acid diluted as occasion demands. Another method in vogue by him is a thorough cleansing of pans and evaporators in the fall with the sorrest of wice. "The difficulties in making nice maple goods," he writes, "are as nothing compared to those of getting the product to the consumer for what it really is and is worth."

FIG. 9.—IN SOIL WITH OPEN SUBSOIL. This soil will depend very largely upon the character of the soil and subsoil. The Kansas station found no essential difference in the moisture content at the different depths of soil that had been prepared in the spring by shallow plowing, by deep plowing and by subsoiling. In experiments at the North Dakota station on different methods of preparing soil and tillage for wheat the largest yield was obtained from land subsoiled eight inches below a six inch furrow.

The Niter Nuisance in Sugar Making. An Ohio maple sugar maker writes to The New England Homestead that in taking care of the niter nuisance he knows nothing better than the use of muriatic acid diluted as occasion demands. Another method in vogue by him is a thorough cleansing of pans and evaporators in the fall with the sorrest of wice. "The difficulties in making nice maple goods," he writes, "are as nothing compared to those of getting the product to the consumer for what it really is and is worth."

FIG. 10.—IN SOIL WITH OPEN SUBSOIL. This soil will depend very largely upon the character of the soil and subsoil. The Kansas station found no essential difference in the moisture content at the different depths of soil that had been prepared in the spring by shallow plowing, by deep plowing and by subsoiling. In experiments at the North Dakota station on different methods of preparing soil and tillage for wheat the largest yield was obtained from land subsoiled eight inches below a six inch furrow.

The Niter Nuisance in Sugar Making. An Ohio maple sugar maker writes to The New England Homestead that in taking care of the niter nuisance he knows nothing better than the use of muriatic acid diluted as occasion demands. Another method in vogue by him is a thorough cleansing of pans and evaporators in the fall with the sorrest of wice. "The difficulties in making nice maple goods," he writes, "are as nothing compared to those of getting the product to the consumer for what it really is and is worth."

FIG. 11.—IN SOIL WITH OPEN SUBSOIL. This soil will depend very largely upon the character of the soil and subsoil. The Kansas station found no essential difference in the moisture content at the different depths of soil that had been prepared in the spring by shallow plowing, by deep plowing and by subsoiling. In experiments at the North Dakota station on different methods of preparing soil and tillage for wheat the largest yield was obtained from land subsoiled eight inches below a six inch furrow.

The Niter Nuisance in Sugar Making. An Ohio maple sugar maker writes to The New England Homestead that in taking care of the niter nuisance he knows nothing better than the use of muriatic acid diluted as occasion demands. Another method in vogue by him is a thorough cleansing of pans and evaporators in the fall with the sorrest of wice. "The difficulties in making nice maple goods," he writes, "are as nothing compared to those of getting the product to the consumer for what it really is and is worth."

FIG. 12.—IN SOIL WITH OPEN SUBSOIL. This soil will depend very largely upon the character of the soil and subsoil. The Kansas station found no essential difference in the moisture content at the different depths of soil that had been prepared in the spring by shallow plowing, by deep plowing and by subsoiling. In experiments at the North Dakota station on different methods of preparing soil and tillage for wheat the largest yield was obtained from land subsoiled eight inches below a six inch furrow.

The Niter Nuisance in Sugar Making. An Ohio maple sugar maker writes to The New England Homestead that in taking care of the niter nuisance he knows nothing better than the use of muriatic acid diluted as occasion demands. Another method in vogue by him is a thorough cleansing of pans and evaporators in the fall with the sorrest of wice. "The difficulties in making nice maple goods," he writes, "are as nothing compared to those of getting the product to the consumer for what it really is and is worth."

FIG. 13.—IN SOIL WITH OPEN SUBSOIL. This soil will depend very largely upon the character of the soil and subsoil. The Kansas station found no essential difference in the moisture content at the different depths of soil that had been prepared in the spring by shallow plowing, by deep plowing and by subsoiling. In experiments at the North Dakota station on different methods of preparing soil and tillage for wheat the largest yield was obtained from land subsoiled eight inches below a six inch furrow.

The Niter Nuisance in Sugar Making. An Ohio maple sugar maker writes to The New England Homestead that in taking care of the niter nuisance he knows nothing better than the use of muriatic acid diluted as occasion demands. Another method in vogue by him is a thorough cleansing of pans and evaporators in the fall with the sorrest of wice. "The difficulties in making nice maple goods," he writes, "are as nothing compared to those of getting the product to the consumer for what it really is and is worth."

PEACH LEAF CURL.

An Increasing Wave of It in the North the Past Few Seasons.

Peach leaf curl has been long known to the orchardist, but the season of 1897 and 1898 have brought it into prominence by no means pleasing in many peach growing sections. This year everybody will be on the alert for its first appearance, and it is important that all should be prepared to combat it. The disease can often be detected when the leaf buds have but slightly opened. The usual early indications are a roughening of the surface on the young leaves and heightened color. B. M. Duggar of the Cornell university station, has given, in bulletin 164, a brief and clear account of the fungus which causes leaf curl, and he has outlined a treatment which has proved most successful.

Leaf curl makes the following special recommendations: First.—Spray thoroughly with strong bordeaux mixture just previous to the swelling of the buds, late in March, or very early in April seems desirable in this latitude.

Second.—Spray again with weaker bordeaux as soon as the petals have fallen or after the work of the bees is over.

Third.—Spray again with weak bordeaux when the first leaves are just full grown or at just about the time that the spores of the fungus are developing. Professor Duggar next discusses his recommendations thus:

First.—Why not spray in midwinter? Midwinter spraying may be quite effective, but there is every reason to believe that the April spraying will be better, for if that is near the time that the buds are infected the spores will be more readily killed. If a time when other work is not pressing is of first importance, spray earlier. Why not use copper sulphate solution? It may be quite as effective, but bordeaux adheres better and would be more likely to prevent infections throughout a period.

Second.—Why? Late infections by spores from the ground or from neighboring fields may be thus guarded against.

Third.—This spraying is to cover the leaves with bordeaux at about the time the fungus is fruiting, hoping not only to prevent summer infection, but to cover places where the spores may lodge in order to pass the winter.

Professor Duggar further says: In making the first spraying, the all important one, strong bordeaux mixture may be used, and every twig should be so well covered that the fungus cannot appear. It is claimed that after the application has dried, however, under certain conditions the foliage of the peach seems to be easily injured by spraying with bordeaux mixture. With this in mind, however, the remedy made I have not been able to produce any injury on the trees experimented upon.

The customary formula for bordeaux mixture is: Copper sulphate (blue vitriol), 100 lbs.; slacked lime (good quality), 4 pounds; water, 50 gallons.

In spraying the foliage of peach trees reduce the copper sulphate to four pounds. Even this may seem strong.

It may, however, be condemned until tried, and when tried the mixture should be made by the one method which has been most successful. To dissolve the copper sulphate suspend it in a coarse sieve in a barrel containing 25 gallons of water. Slack the lime (use only the best) slowly and then dilute it to 25 gallons. Pour the two together in this dilute form, stirring for a few minutes. The stock solution of 25 gallons of the mixture are desired, stock solutions may be made as usual. Dissolve, say, 50 pounds of the copper sulphate in a barrel containing as many gallons of water. The stock solution of 25 gallons is made of the same strength. Then each gallon means a pound of the substance wanted. When the mixture is made, dilute each solution separately before pouring them together.

Taking Bees Out of the Cellar. Taking bees out of the cellar was discussed at the Brantford convention, the prevailing opinion being that they should be put out early—in March or April; some preferring to take out all at once, others by instalments; no uniformity of opinion as to whether they should be put on the old stands.—Canadian Bee Journal.

News and Notes. To all agriculturists the too readers conspicuous service, but gardeners and greenhouse owners may make this animal of special value. Every gardener should aim to keep a colony of toads among his growing crops, and the practice of collecting and transferring them to the gardens is a commendable one.

The twenty-fifth biennial session of the American Pomological society is to be held in Philadelphia Sept. 7 and 8 in the hall of the Pennsylvania Horticultural society. Already it promises to be largely participated in by the various state societies.

On account of the limited amount of arable land in Japan, as Dr. Knapp of the department of agriculture tells, the field crops are all managed upon garden methods. The seed for all the wheat, rice, rye and barley produced is first sown in highly fertilized beds, and when the plant is of sufficient size it is transplanted into the fields, much like cabbage.

The latest wrinkle in sugar beet culture, according to the Denver Field and Farm, is a squeezing plant or substitution located at a place far distant from the factory. The squeezer extracts the juices of the beet and leaves the pulp or pounce at the place for the use of feed farmers there. The juice is then transported in barrels or tierces to the factory, and in this form it is kept indefinitely by proper temperature. With plenty of squeezers all over the country a factory could be kept running nearly all the year.

OUT OF DOOR GOWNS.

Street and Outing Costumes of Various Kinds.

The coat bodice and the tunic are more becoming to a tall than to a short figure. The tunic in particular, which suggests the classical idea, requires height and dignity in the wearer to appear to the best advantage. The bolero, however, is becoming to almost everybody in its present elongated form and may be safely chosen by any woman.

For bicycling and golf suits reversible woollens are used, in which the sides are different. No lining is employed. For example, a suit of dark beige goods consists of a short skirt finished around the edge by many lines of stitching and a double breasted bolero. The wrong side of the goods shows a brown and buff check. The suit is unlined, the seams being neatly bound with ribbon. Such a costume is exactly suited for out of door sports, with the addition of gaiters and an alpine or sailor hat, and in it a woman is comfortably equipped for mountain climbing or any athletic amusement. With a short skirt the petticoat is desirably replaced by bloomers of black material or of goods matching the color of the gown.

There are many odd and pretty ways of decorating the bolero, and one of the new methods of trimming is illustrated. There is a yoke, or rather applied plastron, of plaited white mousseline de sole, around which is a drapey of white lace, fastened to the right shoulder by a jeweled buckle and at the other side by bows of red satin. The lace is carried down the left side in a scalloped and festooned again at the waist with red satin bows. The collar of red satin has coques of the same material and a lace ruff.

TAILOR MADE GOWNS. Materials, Styles and Trimmings For Each Costume.

Tailor made gowns have lost no portion of their prestige and are seen in greater variety than usual because of the wide range of color and trimming allowed them. There are many blue besides navy blue—old blue, blue and a sort of purplish blue both deep and medium—a series of faint tints just off white, gray and pale beige, as well as the usual deep colors and red. Then for materials there are numerous sorts of thin cloth with a velvet, silk, kid or satin finish, thin serges and chevrons of a hairy surface and both coarse and fine venetian cloth. The simplest style making shows a plain, straight skirt, touching the ground all around, very tight around the hips and with an invisible fastening, and a short

BOODICE DECORATION. A picture is given of one of the simplest of the present fashionable petticoats. It is of fawn and blue gize taffeta and, like the skirts of gowns, is molded to the figure at the top. Around the foot is a deep flounce, increasing in height toward the back and headed by a pinked ruche of taffeta. The flounce is bordered by a pinked ruff of taffeta. The coat is usually matches the petticoat in color, or at least harmonizes with it, and in this case a corset of either fawn or blue satin might be chosen.

PRETTY ACCESSORIES. Attractive Details of the Summer Fashions.

Some of the new parasols have painted designs of flowers thrown across them or forming an elaborate pattern around the entire circle. The simplest painted parasols are of plain, thin silk, white or of a delicate color, with a spray of apple blossoms or roses at one side, the more elaborate ones are ruffled with gauze and almost covered with painted flowers. Another novelty in parasols has the edge cut in deep tails or scallops and bordered with little ruchings.

Incarnations of cloth have been much worn, but now there is a new development, in which the cloth designs are applied on a foundation of heavy net, the goods thus created being used for parts or the whole of costumes.

Maze and golden tan straws are the newest. Italian straws and straws mingled with chenille, tulle and gauze are also seen. Hats are still worn forward over the eyes, and the back is more or less lifted, with trimming placed under the brim near the hair. Violet and blue are the most fashionable millinery colors, and therefore violets and blues, or corndowers, are used in great profusion in both dark and light shades.

Children's hats are extremely attractive this season. They are large and are usually simply trimmed. Some of the petti-coats are chiefly ornamented with old flowers—buttercups, daisies, poppies, cornflowers or red and white clovers, with grasses and plain or plaid ribbons. The hat shown in the sketch is of the old fashioned leghorn variety and is trimmed with pink taffeta ribbon at the top and under the brim on each side, the ribbon also forming strings which tie in front. A spray of hawthorn is placed in front, falling upon the brim.

GIRL'S HAT. Children's hats are extremely attractive this season. They are large and are usually simply trimmed. Some of the petti-coats are chiefly ornamented with old flowers—buttercups, daisies, poppies, cornflowers or red and white clovers, with grasses and plain or plaid ribbons. The hat shown in the sketch is of the old fashioned leghorn variety and is trimmed with pink taffeta ribbon at the top and under the brim on each side, the ribbon also forming strings which tie in front. A spray of hawthorn is placed in front, falling upon the brim.

CHILDREN'S HATS. Children's hats are extremely attractive this season. They are large and are usually simply trimmed. Some of the petti-coats are chiefly ornamented with old flowers—buttercups, daisies, poppies, cornflowers or red and white clovers, with grasses and plain or plaid ribbons. The hat shown in the sketch is of the old fashioned leghorn variety and is trimmed with pink taffeta ribbon at the top and under the brim on each side, the ribbon also forming strings which tie in front. A spray of hawthorn is placed in front, falling upon the brim.

CHILDREN'S HATS. Children's hats are extremely attractive this season. They are large and are usually simply trimmed. Some of the petti-coats are chiefly ornamented with old flowers—buttercups, daisies, poppies, cornflowers or red and white clovers, with grasses and plain or plaid ribbons. The hat shown in the sketch is of the old fashioned leghorn variety and is trimmed with pink taffeta ribbon at the top and under the brim on each side, the ribbon also forming strings which tie in front. A spray of hawthorn is placed in front, falling upon the brim.

CHILDREN'S HATS. Children's hats are extremely attractive this season. They are large and are usually simply trimmed. Some of the petti-coats are chiefly ornamented with old flowers—buttercups, daisies, poppies, cornflowers or red and white clovers, with grasses and plain or plaid ribbons. The hat shown in the sketch is of the old fashioned leghorn variety and is trimmed with pink taffeta ribbon at the top and under the brim on each side, the ribbon also forming strings which tie in front. A spray of hawthorn is placed in front, falling upon the brim.

CHILDREN'S HATS. Children's hats are extremely attractive this season. They are large and are usually simply trimmed. Some of the petti-coats are chiefly ornamented with old flowers—buttercups, daisies, poppies, cornflowers or red and white clovers, with grasses and plain or plaid ribbons. The hat shown in the sketch is of the old fashioned leghorn variety and is trimmed with pink taffeta ribbon at the top and under the brim on each side, the ribbon also forming strings which tie in front. A spray of hawthorn is placed in front, falling upon the brim.

CHILDREN'S HATS. Children's hats are extremely attractive this season. They are large and are usually simply trimmed. Some of the petti-coats are chiefly ornamented with old flowers—buttercups, daisies, poppies, cornflowers or red and white clovers, with grasses and plain or plaid ribbons. The hat shown in the sketch is of the old fashioned leghorn variety and is trimmed with pink taffeta ribbon at the top and under the brim on each side, the ribbon also forming strings which tie in front. A spray of hawthorn is placed in front, falling upon the brim.

CHILDREN'S HATS. Children's hats are extremely attractive this season. They are large and are usually simply trimmed. Some of the petti-coats are chiefly ornamented with old flowers—buttercups, daisies, poppies, cornflowers or red and white clovers, with grasses and plain or plaid ribbons. The hat shown in the sketch is of the old fashioned leghorn variety and is trimmed with pink taffeta ribbon at the top and under the brim on each side, the ribbon also forming strings which tie in front. A spray of hawthorn is placed in front, falling upon the brim.

CHILDREN'S HATS. Children's hats are extremely attractive this season. They are large and are usually simply trimmed. Some of the petti-coats are chiefly ornamented with old flowers—buttercups, daisies, poppies, cornflowers or red and white clovers, with grasses and plain or plaid ribbons. The hat shown in the sketch is of the old fashioned leghorn variety and is trimmed with pink taffeta ribbon at the top and under the brim on each side, the ribbon also forming strings which tie in front. A spray of hawthorn is placed in front, falling upon the brim.

CHILDREN'S HATS. Children's hats are extremely attractive this season. They are large and are usually simply trimmed. Some of the petti-coats are chiefly ornamented with old flowers—buttercups, daisies, poppies, cornflowers or red and white clovers, with grasses and plain or plaid ribbons. The hat shown in the sketch is of the old fashioned leghorn variety and is trimmed with pink taffeta ribbon at the top and under the brim on each side, the ribbon also forming strings which tie in front. A spray of hawthorn is placed in front, falling upon the brim.

CHILDREN'S HATS. Children's hats are extremely attractive this season. They are large and are usually simply trimmed. Some of the petti-coats are chiefly ornamented with old flowers—buttercups, daisies, poppies, cornflowers or red and white clovers, with grasses and plain or plaid ribbons. The hat shown in the sketch is of the old fashioned leghorn variety and is trimmed with pink taffeta ribbon at the top and under the brim on each side, the ribbon also forming strings which tie in front. A spray of hawthorn is placed in front, falling upon the brim.

CHILDREN'S HATS. Children's hats are extremely attractive this season. They are large and are usually simply trimmed. Some of the petti-coats are chiefly ornamented with old flowers—buttercups, daisies, poppies, cornflowers or red and white clovers, with grasses and plain or plaid ribbons. The hat shown in the sketch is of the old fashioned leghorn variety and is trimmed with pink taffeta ribbon at the top and under the brim on each side, the ribbon also forming strings which tie in front. A spray of hawthorn is placed in front, falling upon the brim.

CHILDREN'S HATS. Children's hats are extremely attractive this season. They are large and are usually simply trimmed. Some of the petti-coats are chiefly ornamented with old flowers—buttercups, daisies, poppies, cornflowers or red and white clovers, with grasses and plain or plaid ribbons. The hat shown in the sketch is of the old fashioned leghorn variety and is trimmed with pink taffeta ribbon at the top and under the brim on each side, the ribbon also forming strings which tie in front. A spray of hawthorn is placed in front, falling upon the brim.

CHILDREN'S HATS. Children's hats are extremely attractive this season. They are large and are usually simply trimmed. Some of the petti-coats are chiefly ornamented with old flowers—buttercups, daisies, poppies, cornflowers or red and white clovers, with grasses and plain or plaid ribbons. The hat shown in the sketch is of the old fashioned leghorn variety and is trimmed with pink taffeta ribbon at the top and under the brim on each side, the ribbon also forming strings which tie in front. A spray of hawthorn is placed in front, falling upon the brim.

CHILDREN'S HATS. Children's hats are extremely attractive this season. They are large and are usually simply trimmed. Some of the petti-coats are chiefly ornamented with old flowers—buttercups, daisies, poppies, cornflowers or red and white clovers, with grasses and plain or plaid ribbons. The hat shown in the sketch is of the old fashioned leghorn variety and is trimmed with pink taffeta ribbon at the top and under the brim on each side, the ribbon also forming strings which tie in front. A spray of hawthorn is placed in front, falling upon the brim.

CHILDREN'S HATS. Children's hats are extremely attractive this season. They are large and are usually simply trimmed. Some of the petti-coats are chiefly ornamented with old flowers—buttercups, daisies, poppies, cornflowers or red and white clovers, with grasses and plain or plaid ribbons. The hat shown in the sketch is of the old fashioned leghorn variety and is trimmed with pink taffeta ribbon at the top and under the brim on each side, the ribbon also forming strings which tie in front. A spray of hawthorn is placed in front, falling upon the brim.

THE SEMI-WEEKLY TELEGRAPH was 8-page paper and is published every Wednesday and Saturday at \$10 a year in advance...

ADVERTISING RATES. Ordinary commercial advertisements taking the run of the paper—each insertion \$1.00 per inch...

IMPORTANT NOTICE. Owing to the considerable number of communications to the editor...

FACTS FOR SUBSCRIBERS. Without exception names of no new subscribers will be entered until the money is received...

RULES FOR CORRESPONDENTS. Write plainly and take special pains with names...

This paper has the largest circulation in the Maritime Provinces.

Semi-Weekly Telegraph. ST. JOHN, N. B., MAY 20 1899.

THE PROVINCIAL GOVERNMENT AND ST. JOHN. The people of this city have good reason to feel satisfied with the handsome treatment that the provincial government has accorded to St. John...

The detection of Hrs. John Costigan was the chief event of the past week, and it is interesting to observe the opinions expressed by the various Conservative newspapers...

There is a painful tendency just now on the part of the opposition to lower the tone of parliamentary debate, and Sir Charles Tupper is the chief offender in this regard...

One of the strong points of Mr. Blair's speech was the statement which he presented of the prices paid by the late government when purchasing or building connections with the Intercolonial...

Every man, woman and child in this city who ever had the pleasure of meeting the Rev. Dr. Carey, will hear of his sudden death at Ottawa, with that sorrow which is awakened by the loss of a dear friend...

his ever pleasant smile and talking to them with that almost boyish cheerfulness and enthusiasm which he always displayed. It is difficult therefore to realize that his lips are for ever sealed and that his voice will no more be heard on earth...

It would be difficult to match the utter meanness of the Sun's editorial on Wednesday on the provincial government's subsidy to the dry dock...

THE SUN AND TUBBY DOCK. It would be difficult to match the utter meanness of the Sun's editorial on Wednesday on the provincial government's subsidy to the dry dock...

It is interesting to observe the opinions expressed by the various Conservative newspapers. The Montreal Star congratulates Mr. Costigan on having had the courage to act according to his convictions...

There is a painful tendency just now on the part of the opposition to lower the tone of parliamentary debate, and Sir Charles Tupper is the chief offender in this regard...

One of the strong points of Mr. Blair's speech was the statement which he presented of the prices paid by the late government when purchasing or building connections with the Intercolonial...

Every man, woman and child in this city who ever had the pleasure of meeting the Rev. Dr. Carey, will hear of his sudden death at Ottawa, with that sorrow which is awakened by the loss of a dear friend...

of the troops in Algeria and Tunis, maintains an army of 550,000 men on a peace footing, which could be augmented to 2,500,000 in case of a war. Austria-Hungary has an army of 333,000 men in time of peace, which in war would be increased to 1,870,000...

Now, it is easy to see that these armies are far larger than can be required for any national purpose except aggression, or defence against aggression on the part of another power...

THE KINGDOM OF THE NETHERLANDS. In which the peace conference is meeting, presents a very apt illustration of the evils arising from militarism. It has a population of about 5,000,000, the same as that of Canada, and its revenue is \$55,000,000...

RUSSIA IS SHOWING SIGNS OF PROGRESS. Recently she has followed the example of Prince Edward I and Newfoundland and imposed a tax on commercial travellers...

THE TERRITORY AT HONG KONG. In regard to which trouble has arisen between the British and the Chinese residents is that which was recently leased by the Chinese government to Great Britain for a term of ninety-nine years...

THE REMARKABLE DEVELOPMENT OF THE little city of Novorossiysk, at the northeast corner of the Black Sea, brings to mind the large and sudden growth of many towns in this country...

ONE OF THE FINE WHEAT-GROWING REGIONS is in the provinces of Kuban and Stavropol in the southeast of Russia. It is a wheat-growing region across the country, hundreds of miles of land transportation would be required...

IT IS INTERESTING TO HAVE A CONTRADICTION from London of the statements which have been coming from Washington that the negotiations in connection with the Joint Commission have wholly failed...

THE BANK OF LIFE IS ALWAYS OVERDRAWN on certain moral values—delicacy, for instance.

Free Medical Treatment On Trial and Approval. NO MONEY IN ADVANCE.



A course of remedies—the marvel of medical science—and Apparatus indorsed by physicians will be sent ON APPROVAL WITHOUT ADVANCE PAYMENT to any honest man who is suffering from weakness peculiar to men...

ERIE MEDICAL CO. 66 NIAGARA ST., BUFFALO, N. Y. Sirs—As per statement in ST JOHN TELEGRAPH you may mail to me, under plain letter seal, postage paid, full explanation of your new system of furnishing your Appliance and Remedies to reliable men on trial and approval without expense...

Give name and address in full. Please write very plainly. AGE MARRIED OR SINGLE

ly manufactured out of whole cloth, for it is incredible that any official at Washington likely to be well informed on the subject should reveal his secrets to a newspaper correspondent, to the detriment of national and international interests...

THE NEW YORK EVENING POST censures the United States government for refusing to submit the Alaskan boundary question to arbitration unless the arbitrator was chosen from one of the countries of South America...

THE APPOINTING GOVERNMENT would be concerned in the matter. This is more than can be said of Spanish-America. It was a mistake, therefore, on our part, to insist on having an arbitrator chosen from the kind of material that abounds in South America...

THE DEATH OCCURRED Wednesday morning of Mr. John Harding at his residence on Paradise row. Mr. Harding was 84 years old, but was quite active until a short time ago, when he had an attack of paralysis...

THE CHURCH MISSIONARY SOCIETY OF England has just celebrated its centennial anniversary in London. Bishop Whipple of Minnesota was one of the speakers.

GRIMM'S MENTHOL INTINENT gives immediate relief in cases of Burns or Scalds. Its soothing and healing properties are felt the minute applied. It should always be kept in every home in case of emergency...

PROVIDED HE DIDN'T BREAK ANYTHING. Mr. Henpeck (hearing a rumour) says, "You, Charles, I'd like to know what you are up to now!" Mr. Henpeck (feebly)—"I suppose, my dear, I can fall down the cellar stairs if I want to!"

THE CHURCH MISSIONARY SOCIETY OF England has just celebrated its centennial anniversary in London. Bishop Whipple of Minnesota was one of the speakers.

FREE Our special Seeds contain a packet of Great Peas, known varieties, including Fire Fly, Princess of Aberdeen, Crown Jewel, Eckart, and many others. It costs per packet, send us your name and address, and we will send you this elegant Watch and Chain FREE. We also have Violins, Accordion, etc. National Manuf'g Co. DEPT. 21 TORONTO.

BOSTON UNIVERSITY Law School. Full form opens Wednesday, Oct. 4. For circulars address SAMUEL C. BENNETT, Dean.

