

UNIVERSITY OF SASKATCHEWAN
COLLEGE OF AGRICULTURE

HELPS FOR HOMEMAKERS



"YOU CAN'T SEE ME"

SPECIAL BULLETIN

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INTRODUCTORY NOTE

THE following pages contain summaries of the papers read at the Second Annual Convention of the Homemakers' Clubs of Saskatchewan, held in Saskatoon, February 6, 7, 8 and 9, 1912. Doctor Graham's paper on the "Care of the Teeth" is the only exception. This paper was read at the short Course in Agriculture and Home Economics held in Estevan, and is included because of its intense practical value. Miss Tennant's paper on "Washday Methods" is given in full for the same reason, and also because of many requests for its publication.

There will be some disappointment among those who were fortunate enough to hear the papers read, that they are not reproduced in full. It was felt, however, that the papers would serve a more generally useful purpose by being boiled down, so to speak, and thereby made readily accessible to readers.

The Home is the Sunny Side of Every Great People

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AMUSEMENTS IN THE HOME

Mrs. J. H. Storer, Battleford, in speaking on 'Amusements in the Home,' quoted Dryden as saying "Home is the sacred refuge of our life." It is the place to which we turn for rest and sympathy and should also be the place in which we seek amusement of a true and satisfying nature. Good healthy fun is an important factor in cultivating a bright disposition. Plenty of good fun at meal time was suggested as a valuable aid to digestion. An excellent habit to cultivate was that of telling funny things of life and enjoying them at meal time.

Among the amusements in the home which are entertaining and educative and which serve a useful decorative purpose are pyrography and amateur photography. For the young folks electricity is an interesting subject of amusement. It is possible to contrive a small motor with which the use of old discarded batteries can be made a delightful means of employment for the children and a profitable one as well. Mrs. Storer urged that a member of the family be delegated to read aloud while the others worked or played. Music in the home is a source of infinite charm and is distinctly a relaxation for mind and body and a refining influence at all times.

Entertaining, instructive and exciting games which can be played in the home are legion. The spirit of good clean sport is one which ought to be developed and which can be developed in these recreations in the home. Open air amusements which lend themselves to the development of health and good nature are snowshoeing and tobogganing. It is well to exercise in connection with amusements both in and out of the house the social spirit.

READING IN THE HOME

In discussing the problem of reading matter in the home, Miss Mary Mantle, Winnipeg, suggested that much of the good of reading was lost by not reading aloud. The books that we read aloud not only passed the time and drew us together over a common interest but they entered into our lives and we lived them. Reading aloud to children is a true pleasure. They catch afire so beautifully. A mother can acquaint them and herself with the best literature by this method, explaining things as she goes along, and showing them bit by bit wherein lies the power and the worth of the book.

To provide reading matter the plan suggested by Miss Mantle was to form a Book Club and make the yearly cost of membership the price of one good book. By that is meant that every member should buy one good book each year, the book to remain her property. After reading a book she would pass it on to whoever was next on the list. A library started in this way might quite conceivably develop in a few years into a community affair. The smallest beginning is worth while so long as it is regarded only as a beginning, working towards bigger things. Once started a library of this kind could be open to all, men, women and children, on similar terms.

Two points to be most careful about are: the one you put in charge and the place where the books are kept. It was suggested that they might be left with the Postmaster, or that a place be appointed where the members could get their books on a Saturday afternoon. It was also suggested that each member might have for her sole responsibility in connection with the club work, the charge of the books for short monthly periods.

DECORATION AND FURNISHING

"No one lives an independent life, and we mortals are influenced more than we realize by our surroundings" said Mrs. Jean E. Lyons, Saskatoon. "Let us enter a home kept by a loving soul, a sweet, kindly-spirited home-maker, and we feel somewhat as we do when we listen to sweet music, the song of a Nordica, or the tone of a Kukulik's violin. The centre of all good citizenship is the home."

Some of the things which the family of ordinary means can possess in common with others better endowed with worldly goods, and which add largely to the convenience and beauty of the home,

are, the stairway that is away from the front hall, the clothes closet off the front hall for the hats and wraps of the family, serving cupboard and sideboard built in to the wall, wood or coal box on castors, speaking tube from floor to floor, and innumerable other simple devices which serve purposes of beauty and utility.

"Our homes should be carefully thought out and planned, and all things banished from them that are not agreeable. The rooms should resemble the members of the family in one respect. Although the characteristics of each may be quite different, yet there should be an element of harmonious thinking which should bind all together in order to make a happy home."

HOMEMAKERS' CLUBS

Mrs. A. V. Thomas in speaking of the origin of the Homemakers' Clubs in Saskatchewan, expressed the need of them in these words: "There were the women who because of differences of creed had never had an opportunity of meeting their neighbors and who in consequence had spent many lonely hours. There were the women from the rural districts who had wished for an opportunity to get acquainted with their sisters in the town, whom they had known in the early days and from whom they had drifted apart. Then there were the women who attended the meetings with note books and pencils anxious to get information about the care of children. Such women had generally wept beside little graves, which deep down in their hearts they felt were not necessary if only they had known what every mother should know. And there was another class; the women who had lived so long from their kind that they were afraid to enter the room alone and when once in shuddered at the thought of having to speak above a whisper."

The Homemakers' Club idea originated in the mind of a man who was desirous of giving his wife advantages such as he himself enjoyed at agricultural conventions. During the first year the women felt their way slowly, but at convention time developed such enthusiasm that at some of the meetings an attendance of five hundred was not unusual. The greatest good coming from the first convention seemed to be in the confidence gained by the women, and from the social intercourse.

In speaking of the success of the movement, which in less than two years has seen the rise of over thirty clubs, Mrs. Thomas said: "As I did not foresee such a response as there has been when I organized the first club, I have faith that even my greatest dream for the future of this movement may not be equal to the

reality, and when in my vision I see thousands of women banded together in one vast army reaching across our Dominion, I feel a power which if rightly directed must mean the dawn of a brighter tomorrow; a tomorrow when the social evils under which we writhe and which are a disgrace to our civilization are banished; a tomorrow when instead of being selfishly wrapped up in our own affairs we reach out our hand to all humanity, feeling that they are all our own."

WHAT A CLUB CAN DO

Miss Mary S. Mantle, of Winnipeg, said that the club is planned to bring together all women, regardless of differences in religious beliefs, nationality or social position, to bring them together on questions they are all interested in, the important questions of the home and the family and the life of the community as it affects the family. It can place the knowledge you have on some particular subject concerning the home at the disposal of other women in your district. It can place their knowledge at your disposal and the knowledge of experts in different lines at the disposal of all. It makes it possible for them to handle certain community matters which affect them or their homes and which they cannot handle unless they unite.

Among the things which a women's club can do are to establish rest rooms, school gardens and other benevolent institutions which have the community as their beneficiary. These activities are innumerable and do not need to be instanced. One club has succeeded in defraying the cost of a rest room where an expenditure of \$300 was necessary. In this rest room flower shows and other entertainments have been held.

The most successful club is the club which keeps in view the two aspects of its motto: "To promote the interests of the home and the community." The results from the Homemakers' Club are not measured by its membership nor by the quality of its visible work. The greatest results will never be known. They are intangible. "It is the spirit which giveth life to it all."

THE HOME GARDEN

"The further north you can grow fruit the better the flavor." This was the statement made by A. P. Stevenson, who is probably the greatest authority on fruit culture in the Canadian West.

Mr. Stevenson asserted that all the currants are hardy for the West. In caring for fruit bushes it is well to prune judiciously, cutting out the older wood from the centre of the bush and leaving the centre open. Pruning increases the size and improves the quality of the fruit.

Of the red currants best suited for the West, Red Castle and Stewart Seedling are recommended. In White Currants the White Grape, and in Black Currants the Black Naples are most satisfactory. Just as good strawberries can be grown in Saskatchewan as come from the Hood River District or from Ontario. The Senator Dunlap and the Bederwood are excellent berries. There are only two varieties of gooseberries that do well, Houghton's Seeding and the Downing. One variety of the grape only can be grown. It is the Beta. Red raspberries recommended are the Sunbeam, Schaefer's Colossal and the Manitoba Wild. The black raspberry is superior to the red, an excellent variety being the Older. Among plums which do well are the Cheney and the Aiken. One variety of cherries proves successful in certain seasons. It is a cross-bred cherry and at present is nameless.

In the matter of flower gardens Mr. Stevenson recommended the growing of perennials as the most satisfactory, entailing less labor than the annual. The growth of the annuals, however, was not discouraged. There are eighty different varieties of perennials perfectly safe to plant in Saskatchewan gardens. Among the taller ones are golden-glow, herbaceous spirea and larkspur. Next in order of height are bleeding heart, columbine, veronicas, Canterbury bells, oriental poppy and the gaillardia. Among the lower growing types of flowers are the scarlet cross of Jerusalem, achillea, perennial phlox, forget-me-not and pansy. These should be planted with the taller ones at the back.

There are roses you can plant out in your garden which will give you satisfaction. A few that may be mentioned are Rose Rugosa, Blanche de Doubert, Banchi, Scotch Yellow, Persian Yellow, Hensard, Madame Plantier and Ulrich Brunner.

INDOOR GARDENING

Giving the home a perennial touch of spring was the theme discussed by Mrs. R. J. Underwood, Prince Albert, who in asserting the beneficence of the home beautiful said: "In this new country where life is so strenuous and every nerve is at its highest tension in the struggle with the elements and in pursuit of material

gain, we need to bring those things about us that will shut out for a while the materialistic side of life. A few moments of each day should be dedicated exclusively to beauty and to God. Life has a new meaning for each of us in spring because of the evidence of eternal life about us."

Indoor gardening in a kitchen window box was the plan outlined, and only those who had tried it could have any just appreciation of the possibilities of such a miniature back-to-nature excursion. The window box properly constructed and cared for would provide savory vegetables such as radishes, carrots, onions, peppers, parsley, water cress, thyme, sage and mint. These combined beauty with utility. Flowering plants best adapted to give a touch of color were nasturtiums, geraniums, and the spring flowering bulbs, Chinese sacred lily, hyacinth, narcissus and daffodils. Ferns, palms and bamboos might also be utilized to further the desire for the purely ornamental.

It was emphasized that it was more desirable to possess a few well-cared-for plants in artistic pots or window boxes, than many neglected ones.

POULTRY AND EGG PRODUCTION

Mrs. A. Cooper, Treesbank, Manitoba, in describing how success might be achieved in the raising of poultry and the production of winter eggs, recommended the use of portable houses in which no artificial heat is utilized. If the hens are made to work for all they get to eat they will keep themselves warm. A flock that is kept busy or amused will not form bad habits and will not suffer from lack of vitality. A plan to amuse them and give them exercise was to suspend roots about a foot from the ground so that the hens would be obliged to exert themselves in order to get at them.

It was advised to have two lots of poultry in separate houses, the aim being to keep a few of the best egg producers to hatch the spring chickens from, and to rest the best type for breeding purposes. Two-year-old birds should be kept for breeding purposes, and the pullets to do the egg laying for the first year.

In order to secure successful hatchers careful mothers should be selected, plenty of leg exercise being given the little chickens, lots of food after the first forty-eight hours, fresh air, water and comfort. In feeding laying hens dry grains their ration should contain as great a variety as possible.

If care is taken always to produce the best types of birds much better profits will result. Keep a good strain, try for top prices and watch results from year to year. Dress and pack poultry carefully and you will get from ten to fifteen cents per pound more. In marketing eggs it is an excellent plan for several poultry women to combine, each one initialing the eggs she places on the market.

HYGIENE IN THE HOME

A noted physician who established one of the largest sanitariums on the continent and who for many years treated all forms of disease without medicine said: "I would not give to a patient of mine a poisonous drug so much as dissolving a pill in the waters of Lake Superior and allowing him to drink of it." This theory of the treatment of diseases by the use of water, fresh air, exercise and massage was discussed by Miss Mary Sawyer of Saskatoon. She applied to these means the name of rational restoratives and stated that hot and cold water are fast becoming the universal treatment for all diseases. There is not a disease that cannot be treated and alleviated in some way by water.

In the treatment of fever, which was described as a symptom and not a disease, it was advised to secure for the patient absolute rest of mind and body, a constant supply of fresh air, sponge baths and frequent cleansing of the mouth, with every other precaution with regard to cleanliness and disinfection. The same general directions applied to the management of any form of sickness.

When a baby has convulsions the most important thing to do is not to get excited. A warm bath should be given, with care not to burn the child, the temperature of the bath should be 96 fahrenheit. The head should be kept cool by a cold compress. If the cause is over-distension of the stomach, as in indigestion, a little salt in warm water as an emetic may be given followed by an enema.

Fomentations are useful in the treatment of pains in the region of the liver, in the joints, appendicitis, etc. Make and keep the feet and legs warm by a hot foot bath; place a cold compress to the head to prevent cerebral congestion, and apply an ice bag or cold compress to the heart. The fomentations should cover an area of three times that of the affected part. Make the fomentations as hot as can be borne without burning. Protect the patient from exposure while making changes. Always finish with cold to prevent chill by evaporation. Dry carefully.

Proper precautions in cases of tuberculosis would entirely stamp out the greatest scourge of the race. The bacilli enter through the air passages and lodge at some point on the respiratory surfaces. The sputum should be at once burned, or else put in a strong disinfectant solution, as it contains enormous quantities of bacilli, which, if allowed, to dry and mix with the dust becomes scattered broadcast, carrying infection everywhere. The patient should never be allowed to expectorate in a handkerchief unless it can be burned at once. They must sleep in the open air, be given plenty of nourishing food, and access to the sunshine. This is all that can be done for them, but it is all that is necessary.

Diphtheria begins with a chilly sensation, headache and general aching of the muscles and some soreness of the throat with swelling. Send for a doctor at once when these symptoms appear. Gargle the patient's throat with salt and water (glycerine, alum and boric acid for smarting); keep the air in the room moist with steaming tea-kettle with a small quantity of tincture of benzoin added; place the patient flat on the back. There should never be a death if taken in time and antitoxin used. Death results from blood-poisoning and not from choking.

Symptoms of typhoid fever are constant headaches night and day, aching of the limbs and a dull tired feeling, loss of appetite and often nose bleed. Send for a doctor, and while waiting for him to come give the patient a good tub bath, keeping ice cold cloths to the head. Give plenty of cold boiled water, and lemonade to drink. Give only liquid food and at stated intervals. Never leave a delirious patient alone.

Dysentery, erysipelas and other more or less common disorders should be isolated and antiseptic precautions taken as in the case of other fevers.

THE CARE OF MILK

William Newman, Lorneville, Ontario, in speaking of the care of milk, said: "Milk is the perfect food for mammals, giving nourishment to every part of the body. For the very young it is the food of all importance, having in it all the needs for the growing child or the young animal. If the child does not thrive on the whole milk, there are formulas provided by competent physicians which can be easily procured, showing a means of preparing the milk whereby the child is fed according to its weight and age."

To make it possible to get the milk from the cow in a clean condition, have the hair clipped close to the udder and in around

it on the cow, brush the dust away and eliminate the probability of dirt getting into the pail. Do not milk with wet hands. Strain the milk with a good clean piece of cheese-cloth. Provide means of immediate cooling of milk to the temperature of fifty degrees as soon as it comes from the cow, and this will control the growth of bacteria. If absolute certainty is made in taking these precautions, the milk will be proper food for children.

If not sure, a simple way of pasturising is to provide eight ounce bottles thoroughly cleaned and sterilized, place in each a little sugar and water, and nearly fill the bottles with milk. Have enough of these bottles to feed the baby for twenty-four hours. Place them in an open pot or kettle and fill the kettle to the top of the milk in the bottle and boil for twenty minutes after which cork the bottle by using clean dry absorbent cotton.

INFECTIOUS DISEASES

Dr. W. J. McKay, Health Officer, Saskatoon, told how infectious diseases are spread by the milk of cows supplied with impure water. "Diseases of little children caused by bad milk are more serious than any other. Almost all the deaths which occur in children under one year of age are caused by dirty milk. If you think milk is not pure, boil it. It makes it a little difficult to digest but it is better than dirty milk."

In the prevention of disease, cleanliness will do more than anything else. If you keep the house clean and children clean, their clothing clean, and see that they associate with only clean people you will never have much disease in the house. Soap and water are excellent weapons for fighting infectious disease. Clothes and utensils may be disinfected by boiling, with plain formaline, and with dilute carbolic acid.

CARE OF THE TEETH

Dr. F. R. Graham Estevan in speaking on the "Care of the Teeth," showed the dangers and evil effects that attend individuals who neglect their mouths, the very gate-way of the entire human system.

The doctor said, in part, that recent examinations made in the cities of Toronto, Boston and Cleveland revealed the fact

that from 96 to 98 per cent of the mouths of the children in the public schools are in a faulty or diseased condition, leaving only a very small percentage with healthy mouths. In Edmonton, out of a class of forty examined ranging in age from eight to ten, only one child was found to have a healthy mouth. Reports from Halifax, New York and other cities are to the same effect. Ninety-two per cent. of the recruits in the German army were found to have defective teeth. It is estimated that in the United States, only 8 per cent. of the entire population receive dental attention. In Canada it is estimated that 20 per cent. received dental attention. Of the number of people who do receive dental attention, about 5 per cent. take the requisite care of the mouth and present themselves for examination and treatment with sufficient frequency.

What does this condition mean? It means that dental caries, or decay of the teeth, is rampant, the most prevalent disease known to modern civilization, which is producing more havoc in the human family than all other diseases put together. Dr. Osler, the noted physician, has said "that decayed teeth have caused more deterioration in man than alcohol." We are told that at least 95 per cent. of all tuberculosis infections take place through diseased or ill-kept mouths, and what is true of that disease is true of almost all other contagious or infectious diseases. Besides these diseases such conditions as enlarged glands, inflamed tonsils, septic catarrh of the stomach, indigestion, anemia, deafness and many other vicious conditions are directly or indirectly traceable to insanitary mouths. Deformed faces, handicapping individuals for life is another result, while diseased mental capacity has been proven beyond a doubt. No child can attain a high standard for scholarship with diseased and aching teeth. Many of the so-called "backward" children, are so partly, some entirely, from faulty mouth conditions, adenoids and enlarged tonsils. The greatest handicap of our educational system has ever had has been the mistaken attempt to produce a sound and cultured mind in an unsound body.

This has been clearly demonstrated recently in Cleveland, when a special class was formed, known as the Marion School Dental Squad. Some thirty were selected from among those having the worst mouths in the school. Their individual class standing was recorded, their mouths were then put in a healthy condition, and kept so by regular care. At the end of six months the records showed an average gain in proficiency in this class of over 54 per cent. A committee of the National Dental Association of U.S. the largest association of its kind on the continent, carried out these experiments and estimated that, with the average scholar, his working efficiency would be increased 20 per cent. if healthy

oral conditions prevailed. Think what that means, one year saved in five.

A few thousand mouths full of uncleanness and disease are a more serious menace to the community than a much greater amount of uncleanness in other situations that are already covered by health by-laws. The time is coming when this fact will be recognized in this country and when children will be excluded from public schools who have uncared-for and unclean mouths. A school child at present is expected to have his shoes clean—and rightly so—while its mouth may be just as unclean as an uncared-for mouth can be. It is unfortunate for the race that it were not reversed, with hygiene of the mouth preceding that of the boots. The mouth being such a reservoir for the reception and development of the germs of disease, we can readily see how essential it is that it should be kept in a sanitary condition. No woman would think of having her home beautifully decorated, polished floors, dainty rugs, everything in fact absolutely clean, and then allow the front entrance to contain several inches of mud and filth. A clean house would be an impossibility under such conditions. Just so with ourselves. A clean body can not be maintained and allow the vestibule—the mouth—to be filled with noxious, fermenting, germ-laden filth to be mixed with the food and carried to the stomach, there to interfere with digestion and ultimately to poison the entire system.

That a person may have good teeth and a hygienic mouth, care of the mouth should begin before that person has a single tooth. The infant's mouth must be kept in a cleanly condition from its birth. Its gums, its tongue, in fact the whole oral cavity must be washed just as regularly as it gets its body bath. A good solution for this purpose is borax and water, possibly slightly sweetened. Every root of every tooth sets in a socket by itself the bone surrounding the socket constituting what we term the Alveolar process. This socket grows with the tooth and serves in steadying it. The temporary tooth with its socket retains the space which is to be occupied by its successor, so if the tooth is lost prematurely the bone around the socket is absorbed, there being no further use for it and right here we have one of the first causes of irregularity in the permanent set. The systematic bathing of the oral cavity must be kept up all during early childhood if you would have perfect teeth in the second set. I believe the boric solution, earlier recommended, will prevent or at least retard, destructive influences. Should decay be discovered, the child should be immediately placed in the hands of your dentist and be properly cared for that these teeth may remain intact as long as Nature intended.

Before any of the temporary teeth are replaced, four of the

permanent ones appear, one on each side above and below, back of all the others, usually at the age of 6, and by this fact are commonly called the six year molars—more properly the first molar. Right here education is sorely needed. The average parent counts this as one of the temporary set, and regards it of little value, while in reality it is the most important tooth in the whole denture. This first molar, coming when it does, regulates the distance the two jaws are to assume when dentition is complete. If through carelessness or accident the two lower ones are lost, the jaws will come too close together, and an ill-shaped face result. The first molar has the broadest masticating surface, has the most staunch implantation and is placed in that part of the jaw where crunching is most effective. Notwithstanding its great utility, it seems to be more subject to destructive influences than any other tooth. There are several reasons for this—the chief being non-use. If the child's temporary molars (in front of these six years) become decayed and sensitive, as is the case with most children, it cannot and does not chew its food, and in consequence this tooth does not get the use or exercise that nature intended it to have. Every year now brings into use four more of the permanent set until the twelfth year is reached, then a period of some years elapses before the 3rd molar or "Wisdom" tooth appears. This tooth is usually erupted at the age of 18, but it is often delayed and in some cases never appears. When the adult has all teeth in position there should be 32, but it is indeed an exception to see an individual possessing the allotted number. It is a deplorable fact that even today so many people will persist in extracting teeth needlessly, thus crippling the masticating powers.

Clean teeth do not decay nor do they promote germ breeding. Decay goes on more rapidly from infancy until 21 years of age and the teeth require more attention during this period than any other. After the age of three the child should be looked after regularly by a reliable and competent dentist, to see that the mouth is kept clean and healthy and the teeth filled where there are cavities, because the decayed places, if painful, cause the child to swallow foods without proper mastication. As soon as possible the child should be trained in the use of a tooth-brush, and the habit, once acquired, will never be left off.

Oral hygiene is just beginning to come into its own. Physicians are recognizing its importance to the health of the individual, and the laity are awakening to the fact that unclean, unhealthy immoral mouths are a menace to their welfare and the cause of the great bulk of disease and infection. As the stream becomes polluted at its source, so also is the body possessing a foul unsanitary mouth.

THE HOME LAUNDRY

The following paper by Miss Ethel Tennant, University of Saskatchewan, is printed in full owing to many requests for its publication.

The aims of laundering are:—1. To get clothes clean (a) To make them sanitary. (b) To make them absorbent or to renew their powers of absorption. 2. To preserve the original finish in the process of washing and finishing. To be an efficient housekeeper this last must be learned: (a) to be able to do work oneself, with the least amount of energy expended and with the best results. (b) To be able to tell others how to do it.

As a house-hold process, laundering often proves an arduous task instead of an interesting occupation, for, unfortunately, many houses are not equipped in a way to remove the burdens of wash-day.

WATER FOR LAUNDERING

A bountiful supply of water good for laundry purposes is a most important factor in successful laundering. Water is the natural solvent for much of the dirt which accumulates on clothing and it acts as a carrier to rid the clothing of all forms of dirt, both soluble and insoluble. Good drinking water is not necessarily equally good for laundry purposes as water may hold in solution, substances not hurtful to health but very detrimental to cleaning purposes. A good water for the laundry should be clean, soft, clear, odorless, free from discoloration, free from iron, and free from organic matter.

HARD AND SOFT WATER

The characteristic known as hardness is due to the presence of lime salts. Hard water is not the best for laundry purposes, as lime salts decompose the soap used, forming in its place an insoluble lime soap which collects as a curd on the surface of the water. This soap decomposition takes place as long as any lime remains and the cleansing properties of soap are not in operation until this is accomplished. Hard water is said to weaken the fabric by leaving minute particles of the lime soap compound in its pores. If the available supply of water is hard, the problem

of the house-keeper is to find means of removing the lime or of reducing its ill effects.

According to the nature of the lime salts present, water is said to be temporarily or permanently hard. Temporary hardness is due to the presence of carbonate of lime and such water may be softened by boiling. If the water is allowed to stand the lime settles to the bottom of the receptacle and the softened water may be withdrawn from the top. Permanent hardness is due to the presence of sulphate of lime and boiling has no softening effect upon permanently hard water. Iron is another salt, very obnoxious in laundry water. Its presence, even in very small amounts, may give a yellow tinge to clothing, due to the deposit of minute particles of iron rust in the pores of the fabric. Organic matter may be present, which causes clothing to become discolored and disagreeable in appearance and which may make it dangerous to the wearer. It is very desirable in all the above cases to remove the mischievous substance.

A number of materials are on the market for softening water. The cheapest and best of these are the alkalis known as: washing soda, lye, borax, and ammonia. The objection to the use of any chemical in softening water is the injury it may do to the fabric.

ALKALIS

Washing Soda is the cheapest and best alkali to use generally. This can be used safely, is used carefully, for white linens and cottons. It is not so corrosive as to render its handling difficult. It should never be used in the dry form for it is an alkali sufficiently strong to eat holes in a fabric if used in full strength and a strong solution is formed at each spot where the dry substance falls.

Lye or Caustic Soda is an alkali of far greater strength than washing soda and should be used with just so much caution. It is so much more difficult to handle and its action is so much more corrosive that it is not advisable to use it in the home laundry. It is used mostly in softening large quantities of water by the barrel or tank.

Borax is more expensive and is not so effective in its action; but it is less harmful to fabrics and for this reason there are occasions when it is greatly to be preferred. Washing soda and lye, unless they are thoroughly rinsed from the clothing, have a tendency to cause yellowing, particularly when starch is to be used afterwards. Borax has a tendency to whiten and is directly added to starch to increase its clearness. When colored fabrics or wool

are to be washed in hard water borax is one of the best alkalis use for softening the water.

Ammonia is a good alkali. It is a very volatile substance and consequently should be used only when the process is to be conducted quickly. It is better and cheaper to use the full strength ammonia from the druggists' and then dilute it, than to buy the article known as household ammonia, which is of unknown strength.

Water can be softened by exposure to air and sun for several days. This method is not used much in households as the expenditure of time is often considered unwarranted. The only satisfactory method of getting rid of iron is to add washing soda to the water and then let the water settle for five or six days before using. Organic material may be precipitated by the use of alum. Sediment must be allowed to settle.

TO SOFTEN THE WATER

TEST:—Water is soft when a lather of soap remains on top five minutes. An experienced person can tell by the feel. 1. For each gallon of water use two tablespoons of solution, made by dissolving 1 lb. of washing soda, in 1 qt. of boiling water. This solution should be bottled and kept on hand as it is a useful cleansing agent. 2. For each gallon of water, use a quarter (1-4) tablespoon of caustic soda or lye dissolved in one cup of water. 3. For each gallon of water use 1 tablespoon borax dissolved in one cup of water. If water is very hard increase the amount of alkali used. Use test.

To remove organic matter: For each gallon, use 1 tablespoon of a mixture containing 2-3 borax and 1-3 alum. When water is very scarce alum is sometimes used to precipitate the dirt. The water is filtered and used again.

METHODS OF WASHING ARE:—1. Chemical. 2. Mechanical. 3. Combinations of chemical and mechanical. The chemical method saves labor but the difficulty is in getting a chemical which will dissolve dirt and at the same time not dissolve the fibres. This excludes from the legitimate methods such things as strong alkalis, acids or chlorine except in the case of unusually dirty clothing, when the mechanical method of rubbing would wear clothes quite as much as the weakening of the fibres by the chemical. Gasoline, turpentine, kerosene and paraffin wax will dissolve dirt without injuring the fabric, but each has its disadvantage. Gasoline is particularly good for soaking clothes when one wishes to wash without boiling. It is possible to use it

for boiling but it is dangerous. 1-2 cup of gasoline to a tub of clothes is sufficient. Turpentine is used in soaking clothes or in boiling. It is especially good for curtains saturated with smoke. Use 1 to 2 tablespoons to a boiler of clothes together with soap. Excellent results. Kerosene is less expensive than turpentine but the odor is apt to cling, especially if soap is not used freely.

Best results are obtained by boiling together:—1 tablespoon kerosene, 1 oz. soda, 1 lb. soap. Add this to a boiler of boiling soft water in which the clothes are boiled 20 to 30 minutes. Then thoroughly rinsed in hot soapy water. Any parts rub if necessary, then rinse and blue.

PARAFFIN WASHING

Paraffin dissolves dirt very readily and if combined with sufficient soap will not settle on the clothes unless the temperature of the first water after boiling is allowed to fall below the congealing point of paraffin. The two most important points to observe in using it are: (a) To have the boiling water and the water into which the clothes go from the boiler soft or softened. (b) To have the water in the tub hot. In doing a few clothes the water must be heated but in putting a boilerful of clothes at once into this tub the clothes themselves heat the water sufficiently. If the water is not soft the soap unites with the water and leaves the paraffin free to settle in the clothes.

METHOD FOR PARAFFIN WASHING

Shred 1-2 cup of paraffin and 1-3 lb. bar of soap; melt in about 1 quart of soft water. Add this to a boiler of hot water (soft). If one has a washing of three or four boilerfuls, prepare twice this amount using one-half for first boilerful and the pint for remainder being added to each boilerful. Wring the clothes from cold water in which they have been preferably been soaking and boil them 20 or 30 minutes in this mixture. Put into a tub of hot soft water and wash the soap and parffin thoroughly from the clothes, rubbing cuffs, etc., which appear to need it. Rinse and blue. N.B.—In using any method of chemical washing one must not put dry, dirty clothes into a hot mixture as heat will set ordinary dirt. It is sufficient this to merely wring the clothes through cold water before putting in the mixture. Best results are obtained when the clothes soak over night.

DRY CLEANING

1. Gasoline or other grease solvents. 2. French cleaning, —term usually applied to methods where warm powders as flour, rice flour, cornstarch, Fullers' earth, French chalk, etc., are rubbed in and left to absorb the dirt. This method is particularly good for greasy dirt spots. 3. Combinations of 1 and 2.

General term dry cleaning is applied because further finishing as in washing with water is not necessary.

ADVANTAGES OF DRY CLEANING

1. Leaves the fibres with original dressing and finish. 2. Is usually less hard on fibres especially in case of kid, etc. 3. Gasoline, etc., disinfects clothes. Even moths seldom molest clothes dry cleaned. 4. Valuable trimming may be left on and is unharmed. 5. As ironing is not usually necessary, garments that are shirred, etc., may be done with much less trouble.

DISADVANTAGES

1. Gasoline leaves a bad odor which is only removed by heat. 2. More expensive than water and soap. 3. Dangerous. 4. Will only remove dirt held by grease or grease vapors, egg, fruit and coffee stains are not removed. 5. Cleans only silk and wool, not cotton to any extent. Light goods may be cleaned with ammonia and water. For spots on very delicate goods use equal part of deodorized benzine, ether and chloroform. Spots should be sponged until dry to avoid rings.

Shiny spots may be removed by rubbing with blue water.

GUM WATER

1-4 cup Gum Arabic, 1 qt. boiling water. Let dissolve in water over steam in a warm place. Strain. Bottle. Keep in a cool place. 2 tablespoons to the cup for silks. 3 tablespoons to the cup of water for muslins. 1 tablespoon to the cup of water

for laces. Used for silks, fine muslins, mull, lace, net, Chiffon veils (as fine lace). If very fine wash in a bottle or if firm wash in a basin of warm soapy water. Rinse and stiffen just a little in gum water. Always pin out, otherwise iron drags it. If crepe leave to dry, lined out only.

BRAN WATER

Boil 1 cup of bran in 1 qt. water 20 to 30 minutes. Add a second quart of water, cold. Strain through a cheese cloth. Use this with a small quantity of melted soap for washing. Rinse in the doubly diluted bran water. Bran cleanses, keeps the Holland tint and cleanses slightly. It is used for anything Holland colored, with a holland or cream ground in linen or cotton, fancy work or unbleached linen, stenciling, cretines, with cream or Holland grounds. In case of very delicate colors the bran will cleanse sufficiently without soap, thus lessening the chance of fading.

Use 1-2 cup of soap bark to 2 cups of boiling water. Let steep 10 minutes. Strain. It is not necessary to wash it thoroughly from the goods as for soap. For renovating dark woolen skirts—sponge or brush with soap bark. It both brightens and cleans.

GREASE SOLVENTS

(a) Naptha—very volatile. (b) Benzine—not so odorous as gasoline. (c) Turpentine—odorless, and will leave a ring if not pure. (d) Gasoline—cheapest. If purified the odor does not cling. (e) Chloroform—very volatile and very expensive. (f) Ether—very volatile and expensive. (g) Wood Alcohol—the more volatile the material, the less chance of leaving a ring. The last three used in equal proportions excellent for removing stains from delicate fabric, but expensive.

METHODS OF USING GASOLINE

1. As in water cleaning, it is best to soak the goods in it,
2. Soap may be used for very dirty parts. It is better especially with a large garment to rub the dirty parts first with soap before

putting into the gasoline. 3. A brush or cloth must be used to clean parts that cannot be rubbed. 4. Thorough washing and more thorough rinsing, especially if soap is used, is necessary. (One would not use in water for washing). 5. Dry in the open air or in a draft. Heat will remove all trace of odor—never go near a flame. 6. Some material needs light pressing. White kid needs extra treating. Gloves are most easily cleaned on the hands or use a wooden spoon to press out the fingers. After rinsing dry—after drying use French chalk. (a) to improve color. (b) To give a gloss which prevents them soiling so readily. (c) to soften the leather. N.B.—Any good toilet soap may be used with gasoline to take out perspiration stains—not necessary to buy a dry cleaning soap. Pure curd soap is best. Easiest used by putting in a solution of gasoline. Whatever you use for dry cleaning must be as free from water as possible. When soap is used with gasoline, you must rinse it out thoroughly or it will leave a mark.

Tinting with gasoline and oil paints. Gloves, laces, etc., can be tinted by dissolving a little oil paint in gasoline.

TO TAKE OUT STAINS

Always put a folded cloth underneath to absorb the gas. (a) To prevent it from spreading. (b) To prevent ring forming. On white or very light goods spread French chalk or cornstarch liberally about the stain. This scatters the moisture and does not allow it to dry in lines. If the gasoline spreads in dark goods brush the lines made by wet, and dry, not allowing it to dry in a set line. GREASE—Clean by putting French chalk on and leaving in a warm place. (Heat gasoline to prevent ring). FR. CLEANED—rubbing chalk well into the goods and leaving a warm place. SHOE BLACKING—Tar oil on skirts should have lard rubbed in, then wash in gasoline.

TO CLEAN FURS

Light furs are best cleaned by rubbing into them hot flour or cornstarch or rice. Ermine, etc. Rub the hot flour well in, using a brush for very much soiled parts. Leave in over night if possible, then shake out. Very dirty furs may be cleaned in

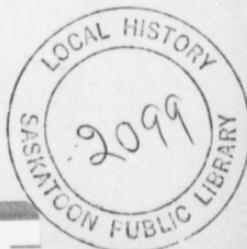
gasoline but it is almost impossible to get the odor out of the padding. Very dark furs are best cleaned with hot cornstarch or hot bran. Paste of flour and gasoline—dry—shake. Recipe for cleaning furs, eiderdown, voile, etc., Babies' carriage rugs, made of lambs' wool, etc. 3 qts. flour. 3 lbs. corn-meal. 15c worth of powdered ammonia (druggists'). 10c package of borax. Mix in a tub and rub the article on a board with mixture until clean.

Soft felt may be washed in gasoline. Stiff felt spread on evenly, a paste of French chalk and gasoline. Let it dry and brush out, Also good for furs. Hats—Wash as silk.

BLEACHES

1. Javelle Water. 1 lb. of washing soda, 1 qt. of boiling water, 1-2 lb. chloride of lime, 2 qts. of cold water. Add boiling water to the soda. Dissolve lime in cold water—let it settle. Pour clear liquid into dissolved soda. Bottle and keep in a dark place. Soak in equal quantities of Javelle and hot water to remove stains—takes out color, neutralizes with ammonia. 2. 1 teaspoon of Ammonia to a wash will keep clothes white. 3. 1 pint of boiling water, 1 teaspoon of oxalic acid, 1 teaspoon of ammonia.

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HOUSEHOLD PRODUCTS

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