

PROVINCE OF BRITISH COLUMBIA.

DEPARTMENT OF AGRICULTURE
(WOMEN'S INSTITUTES).

BULLETIN No. 41.

LABOUR-SAVING DEVICES IN THE HOUSEHOLD.

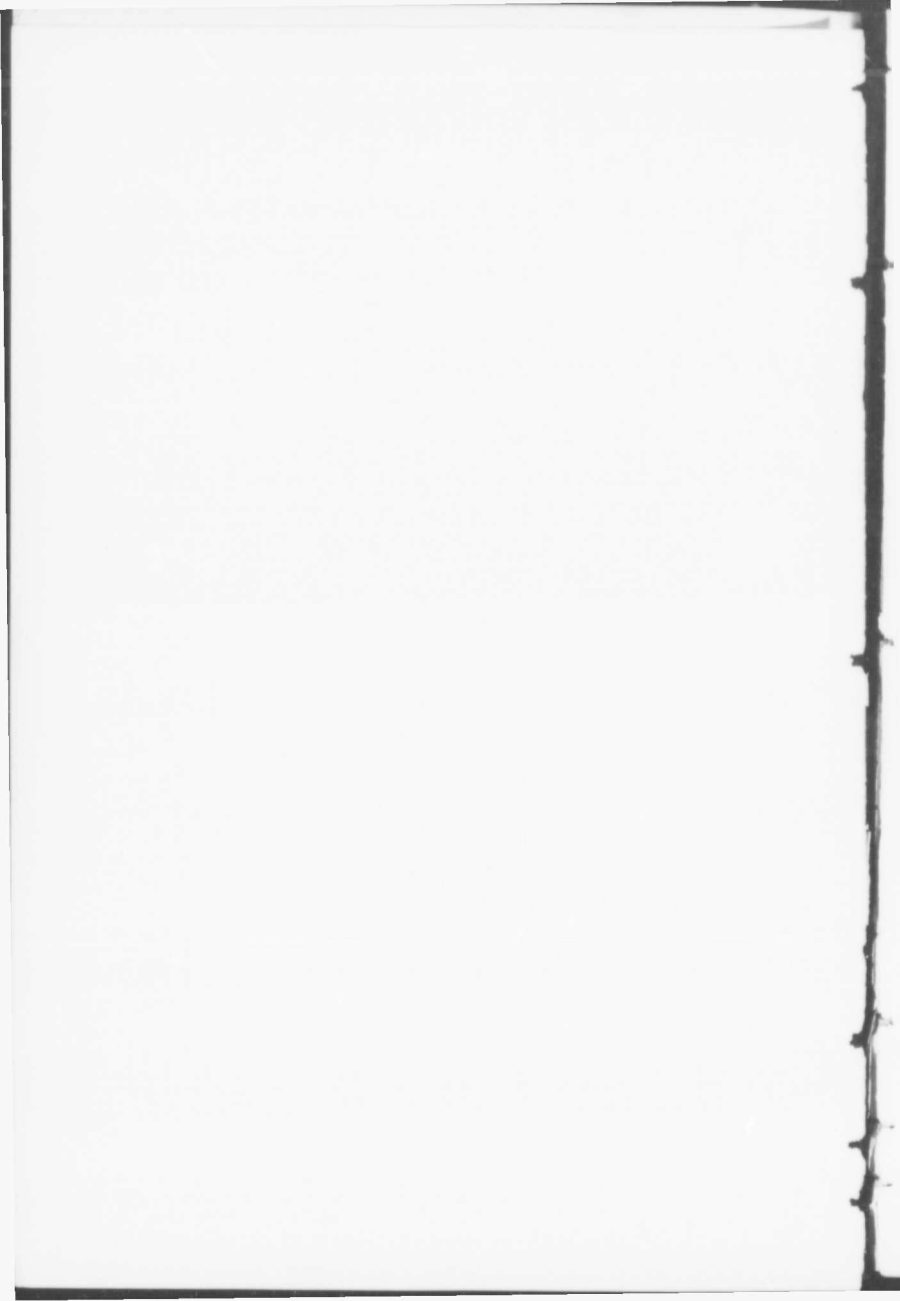
—BY—

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PRINTED BY AUTHORITY OF
THE LEGISLATIVE ASSEMBLY OF BRITISH COLUMBIA.

VICTORIA, B.C.:
Printed by WILLIAM H. COLLIN, Printer to the King's Most Excellent Majesty.
1912.



DEPARTMENT OF AGRICULTURE,

VICTORIA, B.C., 11th March, 1912.

The Honourable Price Ellison,

Minister of Agriculture.

SIR,—I have the honour to submit herewith Bulletin No. 41, entitled "Labour-saving Devices in the Household," prepared on behalf of the members of the Women's Institutes.

I have the honour to be,

Sir,

Your obedient servant,

WM. E. SCOTT,

Deputy Minister of Agriculture,

Superintendent of Institutes.

NOTE.

Information as to where the appliances can be purchased to which reference is made in this bulletin may be obtained from the local Secretaries of the various branches of the Women's Institute.

LABOUR-SAVING DEVICES IN THE HOUSEHOLD.

A FEELING of pity, almost akin to contempt, is apt to exist in such a young country as British Columbia for the (assumed) ignorance and deficiencies of former days. People are prone to imagine that to be modern is to be superior to their ancestors; because, usually, they are unaware of the multitude of wise suggestions and practical proposals advanced centuries ago, which still await putting into practice. So it comes about that our forefathers are often dismissed as "old fogies," out of touch, as we say, with

THIS PRACTICAL AGE,

of which the distinguishing characteristic is the utilization in commerce, trade processes, and agriculture, of all the resources of modern science. Nevertheless, what *is* present-day practice but the application of

EXPERIENCE AND KNOWLEDGE ACQUIRED BY OUR PREDECESSORS?

We pride ourselves, for example, upon the care now taken of health; but four hundred years ago Francis Bacon had not only observed that disharmony in the working of the bodily functions lay at the root of disease, but he put his observation on record, for the guidance of his fellows and of succeeding generations. Could any teaching be more

"UP TO DATE"

than the following quotation from his writings? "Knowledge," he wrote, "is first to be acquired and then to be put in action." For what reason, you will ask? Listen: In order that "the harp of man's body may be tuned to harmony."

"GATHER THIS EXCELLENT DEW OF KNOWLEDGE,"

he continued; "It is a rich store for the relief of man's estate"; using the word "estate" in its full significance, which includes man's physical condition as well as his personal possessions,

Now millions of women devote their whole existence to this

NOBLE WORK OF "TUNING UP THE HARPS" OF OTHER PEOPLE'S LIVES;

but the "rule of reason" has been sparingly and imperfectly applied to the revision of domestic methods, from failure to realize the need to employ all the resources of modern knowledge in the betterment of home life (though women are quite accustomed to the fact that this is common practice in all other departments of business), and from the survival of ancient prejudices, hard to overcome.

"As it was with our great-grandmothers, so it must be with us, and so it shall be with our great-grandchildren" has been their refrain, whenever the actual duty, as well as the advantages, of reforms in the art of house-keeping have been urged upon them.

The conviction that

DRUDGERY IS NOT ONLY INEVITABLE, BUT BLESSED,

has been the erroneous consolation of many a tired housekeeper. Labour should be a joy, not a burden. Were this same overburdened worker but to "gather the excellent dew of knowledge" now to be found at her very door, she could lift her round of daily duties out of the rut of "patient, enduring labour" (which is the literal meaning of the word "drudgery") on to the level of an interesting, highly skilled, as well as less exacting, occupation.

Miss Hilda Oakley, Warden of King's College for Women, University of London, where a University Course in Home Science and Economics is well established, has summed up concisely and appropriately the point Francis Bacon tried to impress upon housewives in the reign of Queen Elizabeth: "We increase the power of vision into the most necessary tasks of daily life tenfold by developing the brain behind the eyes."

The fact cannot be too often emphasized that, just as much as the

FULL FORCE OF HUMAN INTELLIGENCE IS CONCENTRATED

upon the improvement of cattle and of crops, so also it must be directed to the modernizing of our domestic activities, too long dominated by the sway of ancient custom.

As a matter of fact, the details of domestic duties are infinitely more varied and demand a higher degree of intelligence than do the callings of stenographer, shop-server, or factory-hand, which appeal so strongly to the young female mind to-day.

The apparent monotony of domestic work is, in part, the outcome of our failure to utilize for its illumination the resources of modern knowledge. Daily repetition there must be; cleaning and cooking are always recurring, until they seem endless. But the work can be lightened, the perpetual repetition made far less wearisome, if this idea of their object, "the tuning-up of the harps of human lives," be kept in view. A fresh interest is lent to the most familiar "chore" by endeavouring to utilize in its performance the new suggestions and appliances now at our disposal.

EFFICIENCY

In the administration of her kingdom must be the modern home-maker's ideal and the object of her practice.

She must be herself efficient; that is, trained in the knowledge of elementary scientific principles, so that she can to some degree control her conditions, instead of finding herself their helpless victim.

Her equipment must be efficient, whether it be for cooking, cleaning, serving, or sewing. The better the workman, the more he realizes the worth and economy of good tools.

The home must be planned for efficiency. Strength, time, and steps are too precious to be wasted by the shortcomings of a badly planned house.

"SAVING STEPS"

is the title of a bulletin for the farmers' wives of New York State, published by Cornell University, U.S.A., more than ten years ago. Where its wise suggestions have been adopted, lives have been sweetened and prolonged, health has been improved, "family jars" have diminished, and the standard of living has been raised in countless homes.

What was its text? Why, just this: The need for more intelligence among the women of the State in the care of self and others; the necessity for the revision of many old habits in the light of modern knowledge; and the duty of saving strength by employing the means now at hand to lighten their own labours as well as to promote the health of their households. There is neither

VIRTUE NOR ECONOMY

in making a day's work monotonous, when by the exercise of intelligence it might teem with interest. There is no merit in being overtired, often harassed, or too busy to keep up any outside interests or to enjoy essential recreation.

It is with the object of opening up this important subject that a

BULLETIN ON LABOUR-SAVING DEVICES IN THE HOME

has been prepared. It covers so wide a field that reference to many useful devices and appliances must necessarily be omitted; many "tips" familiar to experienced housewives cannot be mentioned.

Incomplete as the presentation of this matter must be, consequent upon the limitations of space, it can be studied to most advantage if divided into three groups; though none of these will comprise all the details which should find their place in one or other of them.

It is, however, to be hoped that by the discussion of those here enumerated, and by a substantial addition to their number through the interchange of personal practice, the Women's Institutes of British Columbia will render good service to the Empire. Increased efficiency in the work of individual members must raise the standard of health not alone in their own homes, but, by force of example, in their immediate neighbourhood, and by degrees in the whole Province.

Group I, will deal with

DEVICES OF MANAGEMENT:

those which are chiefly the result of forethought or of orderly arrangements; in which mental effort is the promoting force; in which, to use a homely old saying, "the head saves the heels."

Group II, will comprise

DEVICES OF EXPERIENCE:

those which have become more or less habitual, because their advantages have forced themselves upon the worker in the course of her daily routine. They are most accurately described as the result of that practice which gradually makes perfect.

Group III, will be concerned with articles designed to improve kitchen equipment and to facilitate the performance of domestic duties generally. Most mechanical aids to increased efficiency come into this group; though, as these bulletins are primarily written for the information of those living away from cities, no reference will be made to electric conveniences, in spite of the fact that, in the near future, the utilization of the electric current will constitute the greatest labour-saving device in the household as elsewhere.

Advertisements of these

DEVICES OF EQUIPMENT

now appear quite frequently in the daily press; but most people feel the want of reliable guidance in their selection, doubting the wisdom or economy of their purchase.

It is to be hoped that before very long a

HOUSEKEEPING EXPERIMENT STATION

will be established in Canada, corresponding to that at Pasadena, California, U.S.A., where Mr. Charles Barnard and his wife devote their time to testing new labour-saving devices as they come on the market. For a nominal fee, candid advice is given to would-be purchasers as to the most advantageous selection to make. This is a truly practical bit of work, especially as the results of the tests are summarized in bulletins, for the guidance of all who care to gather, for a small sum, the "excellent dew of knowledge" not only collected but stored by these progressive experimenters.

GROUP I.—LABOUR-SAVING DEVICES THE RESULT OF GOOD MANAGEMENT AND FORETHOUGHT.

This group must be subdivided into two divisions: (a) Those which call for the co-operation of the other members of a household, and (b) those which are the personal concern of the housewife.

DIVISION (a).—DEVICES WHICH CALL FOR FAMILY CO-OPERATION.

Of these, *order* is the keynote. One or two examples will amply suffice; for once attention is directed to them, many more will suggest themselves or be recalled to mind.

Example (1).—The provision, just outside the entrance-door, of hooks, scraper, wire mat, and a neat box, containing a boot-brush and a whisk, so that wet or dusty coats or caps can be left on the porch, and mud, snow, or dust may be brushed or whisked off boots before coming indoors. The removal of much indoor dirt will thus be saved.

Example (2).—The custom of intelligent division of labour among the members of a family in washing-up after meals; one should scrape the plates and pile them, another should prepare the bowl of water and wash them, a third should rinse and wipe; though, where a plate-drainer is used and the washing is carried out in very hot water, the labour of drying is saved.

Example (3).—Co-operation in bed-making should always be insisted upon; it is a strictly labour-saving device. The bed is better and more quickly made, while considerable economy of energy is the result.

Example (4).—Habits should be early formed in such matters as stripping beds, putting away clothes, shutting drawers, emptying slops, etc. When attention is regularly given to these details by the occupant of each bedroom, the daily "doing" of that room by the house-mother is reduced to a minimum of labour.

Example (5).—Each member of a household should be trained to shake out, fold neatly, roll into a bundle, and bring downstairs the soiled linen of the week on washing-day. Its collection by one pair of feet and folding and carrying by one pair of arms and hands is thus saved.

DIVISION (b).—PERSONAL DEVICES FOR SAVING LABOUR.

Example (1).—Thought in the arrangement of the kitchen, a point well illustrated in Fig. (1).



FIG. (1).

NOTE.—The window immediately above the sink, so that all washing and cleaning is done in a good light.

The portable, airy, metal saucepan-stand to the right, where pans can be placed after washing, without stirring from the sink.

The conveniently placed shelf for the washbowls, used for glass, china, and silver.

The towel-hangers above this shelf, where the cloths are ready to hand, after scalding and drying, if possible, in the open air.

The pan under the sink, into which soiled cloths can be dropped.

The brushes, mops, plate-scraper, soap-saver, etc., each furnished with a ring and hung from a hook on the shelf to the left of the sink, where, from the position of the windows, there is also a free current of air.

Observe, too, the order maintained on the shelves to the left again, above the fireless cooker.

Neatly arranged on the lowest shelf are all the cleansing agents used in the house—soda, ammonia, whitening, soap-jelly, soap powder, salt, turpentine, linseed-oil, formalin, etc.

Above are the kettles in constant use, quart and pint measures, tea and coffee pots, etc.

On the third shelf are the pans and kettles only occasionally wanted, the fish-kettle, etc.

Above, again, are the mortar and pestle, the thermos flask, the glue-pot, and one or two more conveniences, also for occasional use.

Fig. (2) shows a portion of the other end of the same kitchen. The china cupboard, with its glazed, sliding doors, is the principal object which attracts the eye, protecting, as it does, its contents from dust. However

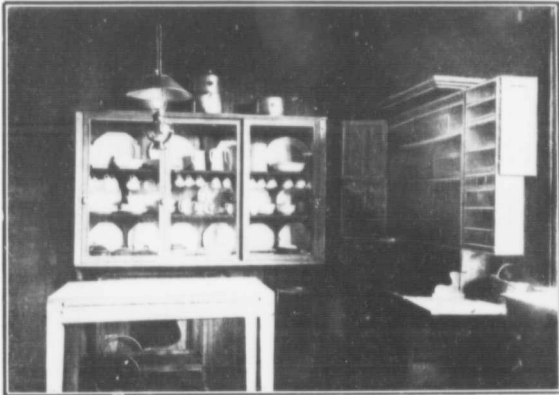


FIG. (2).

carefully a kitchen may be kept, the mere walking to and fro of the cook must inevitably grind off dust from the floor, besides the fine dirt dispersed when attending to the fire. This cupboard is next to the door which opens into the living-room, and a glimpse can be caught (between the legs of the table) of the wheel-tray, on which all that is needed for a meal can be taken in one journey to the dining-table. To the right of the illustration is the kitchen cabinet, which will be described in detail later on.

A CONVENIENT AND ECONOMICAL LARDER

is shown in Fig. (3). Experience has confirmed the value of such a larder, where trouble and expense call for consideration. Placed as it is on a north verandah, just outside the kitchen-door, it is economical of steps and economical of money, too; for the food is kept under as good conditions as are available in the absence of ice. It is constructed of four fly-proof doors, carefully joined, so that all insects are excluded. Its spacious shelves allow fruit and desserts, meat, milk, and butter, etc., each to be stored at a separate level, and in a thorough draught; indeed, the larder is raised 6 inches from the balcony, in order that a free current of air shall pass beneath it as well as all round and through it.

The pails and lids from the fireless cooker will be noticed on the bottom shelf; these are employed not only for cooking purposes, but each night they are filled with boiling water and stored away in the cooker, to furnish a supply of scalding water for use in the early morning before the fire has burned up.

To multiply examples of this form of labour-saving device is unnecessary; they would include the collection into a large basket of all ornaments, loose books or papers, etc., in a room which is to be cleaned, so that all can be

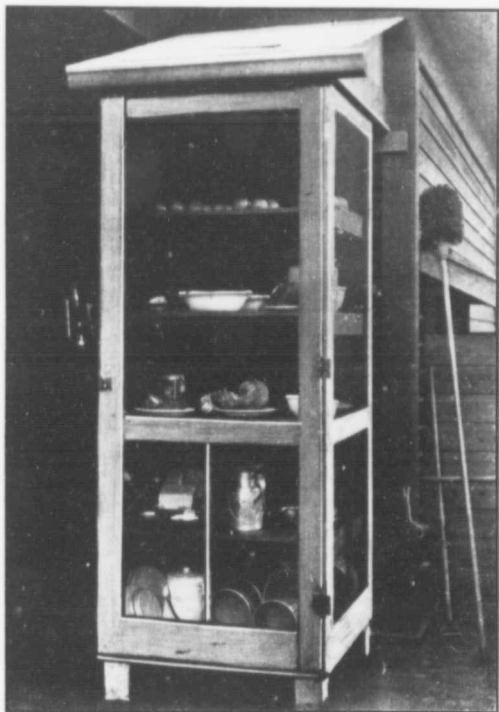


FIG. (3).

removed in one journey, thus saving countless steps to and fro; the use of large dust-sheets, with which all furniture can be covered before the room is swept; the protection of the hair in kitchen and house work by wearing a sunbonnet or large enveloping cap, and so on. Attention, therefore, will now be directed to

GROUP II.—LABOUR-SAVING DEVICES THE RESULT OF PRACTICAL EXPERIENCE.

Among these, the selection of china and kitchen utensils in the light of experience may be given a prominent place. Many young housekeepers start their career, proud of the wedding gifts with which their shelves are furnished; gifts too often chosen for prettiness rather than for strict utility; neither are they always judicious in their own purchases.

COLOURED ENAMELWARE,

for instance, is the most attractive, but experience soon teaches its short-lived efficiency. Cracked and chipped enamel is unsatisfactory for the consumers of the contents of such damaged pans, which are also difficult to clean, as well as no ornament to the kitchen.

There is no comparison between the ease with which graniteware or aluminium are lifted and cleaned and the labour exacted by iron pots and pans; yet the length of life is well-nigh equal; and, in the case of aluminium, much less time is required for cooking processes.

DEMAND CREATES SUPPLY.

so it may not be amiss at this point to inquire why all women do not insist that saucepans be made with "lips." To pour soup or sauce over a "lip" ensures cleanliness, because the stream flows in a direct channel from one vessel to another, accuracy is secured, and much unnecessary cleaning of dirty saucepan-sides is saved. Or, to give a further illustration of this point, why do not women decline to purchase milk-pans or double boilers which are seamed? All utensils in which milk is to be stored or cooked should be rounded within; the saving of daily labour is enormous to those who possess such intelligently constructed pans.

To rinse out a double boiler with cold water before its use for cooking milk certainly facilitates subsequent cleansing; but why not reduce such cleaning to a vanishing-point by insistence upon a shape adapted to the purpose of the utensil? Then, consider the

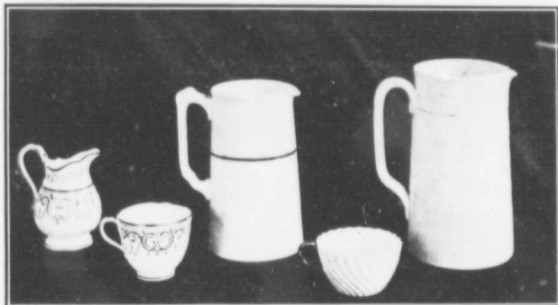


FIG. (4).

CHOICE OF CHINA FOR DAILY USE.

Illustrations of good and poor designs are shown in Fig. (4). A fluted cup!—who has not sighed over the time spent in the cleaning of those flutes? A jug with ornamental bands, into the creases of which dirt quickly creeps, but from which it is slowly dislodged! Compare this design with the jug in the centre of the group; this is easy enough to clean, except the handle, which might advantageously be more simple. The jug to the left is included because, with its neck nipped in as it is, it is unsuited for the very purpose for which it was made, the reception of milk. All milk-jugs should be wide-mouthed and straight-sided, so that a mop can be easily introduced and freely used. Fig. (5) depicts a group of

LABOUR-SAVING ARTICLES

which ought to find a place in every household. Fire-proof china, for instance, is hardly known in British Columbia, yet, in the Old World, no housekeeper

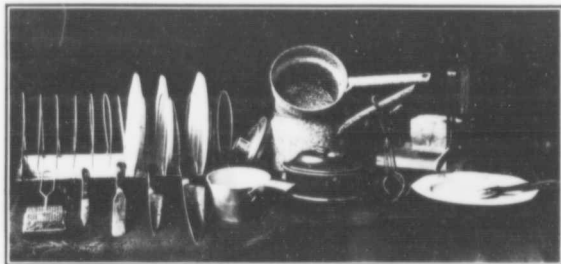


FIG. (5).

of experience would be without it. She appreciates too highly the advantage of being able to steam, stew, or bake food in the dish in which it can go to table. The colouring of rich brown or green is pleasing and artistic, and the highly glazed surface makes it easy to clean. If, by accident, a dish is "burnt," every trace of discoloration can be removed by soaking for a few hours in salt and water.

Another great economy of time is found in the gradual collection of a good assortment of *really sharp* kitchen-knives. There should be two butcher's knives, large and small, for cutting meat or poultry into joints or other divisions; two flexible knives, also of different sizes, for mixing pastry, cakes, etc., and for scraping out the bread-mixer or pudding-bowls; while at least one small knife for paring and chopping fruit and vegetables is a necessity, not a luxury. A knife of distinct shape, with its own home, should be provided for onions, shallot, or garlic; besides one or two old table-knives for odd purposes.

A wise saving of labour, too is found in the possession of a dozen or more white-china bowls of various sizes. Half the number may be quite small, just to hold the "left-overs"—a few spoonfuls of onion or bread sauce, or gravy, or soup, or stewed fruit or preserves, which, added to some "made" dish, just give a suggestion of agreeable flavour, appetizing and healthful.

THE MOST SUCCESSFUL SOUPS, STEWS, OR PUDDINGS

often owe their attraction merely to the intelligent addition of one of just such odds and ends. No cook worth the name ever dreams of wasting these leavings; she knows their value too well, and counts them as a constant source of economy, for they enable her to utilize otherwise uninteresting, though wholesome, remainders.

Many might be the useful experiences exchanged on the subject of

LABOUR-SAVING DEVICES FOR THE REMOVAL OF DIRT,

whether it be spillings on the stove, stains on china and saucepans, or dust on furniture and floors.

It is perhaps too commonplace to remind readers of the value of an instantaneous sprinkling of salt over spillings of any kind on the stove or in the oven; or of the desirable self-control which leaves grease to cool on floor or in pans or sink, when it can be easily peeled off with a flexible knife, instead of hastily deluging (and incidentally spreading) it by the application of hot water.

How few people trouble to provide themselves with small iron rings to place beneath pans on the stove and so save themselves the cleaning of

BURNT SAUCEPANS:

but probably all of us know that if a stew or soup "catches," much of it can be kept eatable if the saucepan be instantly plunged into cold water. The quick cooling of the contents of the burnt pan checks the formation of steam, which otherwise would rise up through the whole of the liquid, carrying with it the objectionable "burnt" flavour. When emptied, the pan should be half-filled with a strong solution of salt and water, and left to soak for some hours, after which it will be cleaned quite easily.

Many an experience could also be exchanged upon

WHAT TO DO WHEN THINGS GO WRONG.

In order to save the time and material expended on the spoiled dish, as well as the labour and expense of preparing another one. Curdled custard, for instance, may often be converted into a usable sauce in the following way:—

Mix two level tablespoons of corn starch into smooth paste with cold water or milk. Strain the curdled mixture into this, stirring it the while to keep it smooth. Continue to stir, after returning to the stove, until the sauce thickens and boils; an extra egg stirred in, after removal from the fire, will be an improvement.

To take another illustration of this point. Sometimes a hastily made sauce will become oily instead of smooth. To make an oily sauce smooth, take it at once off the stove, add a little cold water or milk, then stir it over the fire until the first signs of boiling appear, when the pan must be drawn to one side of the stove; for were the sauce to reboil the "oiliness" would recur, and instead of saving labour, extra time and trouble would have been wasted.

At this point it is tempting to introduce hints on personal experiences of

THE CONNECTION BETWEEN POSTURE AND ECONOMY OF HEALTH,
FATIGUE, AND TIME.

Unfortunately, the limits of space permit of but one or two suggestions on this very important branch of my subject.

Try the effect of raising the kitchen-table and ironing-board on wooden blocks 4 or 6 inches thick, according to your own stature; and estimate the saving you have effected at the end of a week in back-ache, cramped lungs, and tired shoulders. Then ask yourself why women have suffered so needlessly for generations from the use of tables of a height admirably suited to diners, seated upon comfortable chairs, but quite unsuited to kitchen and laundry purposes, when the user stands, not sits. Notice, in your own case, the better position of chest and shoulders when standing at the raised table, good for lung-expansion and consequent blood-purification, with all the associated advantages to health and efficient work. Add to the kitchen furniture a high stool—see Fig. (13)—on which the weight of the body can be supported while carrying out many details of a cook's work; and then try to calculate the saving of energy which becomes available for other purposes.

To explain the whole significance of this question of posture cannot be attempted in this bulletin; we must pass on to another household detail which presses heavily on most housewives, viz. :—

THE DAILY REMOVAL OF DUST.

Were feather dusters not seen on sale, it would be incredible that a demand for such useless, abominable, labour-making articles could find purchasers in a country which calls itself progressive. These feather brushes merely flick the dust into the air, from which it presently settles down again on the very surface from which the thoughtless housewife imagined she had removed it. The most enlightened women, seeing for themselves how much dust is scattered by even ordinary dusters, have for some time past provided themselves with squares of cheese-cloth as substitutes, which they sprinkle lightly and discreetly with coal-oil, "Three in One" oil, or some similar preparation. By this means they do, to a large extent, remove dust from their shelves and furniture. But such dusters cannot be used for china, glass, or metal surfaces, neither can they be washed.

In an increasing number of houses, therefore, these substitutes are being replaced by what are known as

DUSTLESS DUSTERS,

which have been treated with some chemical preparation, so that not a particle of dust is dislodged even when the duster is shaken or beaten, until the limit of its capacity to hold dust is reached. Then a good washing with soap and hot water restores it once more to its full worth as a *dust-remover* and not a *dust-scatterer*. These dusters polish glass, metal, and china as well as wood, and can be used so long as the threads hold together.

THE FRESH FEELING OF A ROOM FROM WHICH THE DUST HAS BEEN ACTUALLY REMOVED

by one of these chemically prepared dusters is the best advertisement of its claims as a genuine labour-saving device.

The consideration of these aids to *real*, not *attempted*, cleanliness leads us naturally on to the third and final division of our subject.

GROUP III.—LABOUR-SAVING DEVICES OF A MECHANICAL NATURE.

Improved devices of equipment are now so numerous that, unfortunately, only a few can be mentioned. Some of those which assist in

EFFICIENT CLEANING OF OUR HOUSES

shall be first passed in review, though only too briefly. Prominence must be given to the worth of long-handled dust-pans, scrubbers, self-wringing mops, carpet-sweepers, and small vacuum cleaners. These all share two advantages:—

- (a.) They save the labour of stooping or kneeling;
- (b.) They effectively remove dirt when used appropriately and with intelligence.

The first comment of my readers will be: "Why should I spare myself the act of stooping; my mother worked for hours on her hands and knees, she never grumbled, why then should I?"

Our grandparents were satisfied to travel by stage-coach; is that a reason why we should not perform our journeys by train or automobile? To waste energy is as ignorant and foolish as to waste time, when the means are at hand to economize our powers, which then are available for some other purpose. Think for a moment

WHAT STOOPING AND KNEELING INVOLVE.

We often talk about the weight of our bodies as a whole. Thus we are either pleased to maintain the same weight, or to lose some pounds if too stout, or to gain so many pounds after an exhausting illness. Very few people, however, realize that, when the upper part of the body is bent forward, as in stooping down to use an ordinary dust-pan and brush, half the weight of the whole body has to be raised by the body itself when resuming an upright position.

MOST WOMEN WEIGH FROM 130 TO 150 LB.

Every time, therefore, that they stoop down, the individual undergoes the wear and tear of lifting a weight of 60 to 70 lb., which represents a very definite expenditure of energy.

When this energy is stored up by the use of intelligently designed brushes, pans, etc., not only are the results of the morning's work as good, probably better, than under the old system, but the strength saved is in hand to be used for other duties, or for a healthful walk, or for some form of study or recreation. The results will be also perceptible in more vigorous health and in bright, companionable spirits.

SOME PATIENCE AND PRACTICE WILL BE AT FIRST REQUIRED

before full command is acquired of the new tools; some stiffness will be associated with the use of the fresh muscles called into action by the unfamiliar posture. But the saving of fatigue and the increased efficiency of results will amply compensate for this initial perseverance.

THE DESIGN AND CONSTRUCTION OF THESE NEW APPLIANCES

are, of course, susceptible of considerable improvement, for they are yet in their infancy. But, in my experience, suggestions on these points are cordially received by the firms which supply them; and they might be advisedly forwarded by branches of the Women's Institutes—of course, after fair trial and mature consideration of the article criticized.

THE LONG-HANDLED DUST-PAN

now on sale, for instance, should have a longer and stronger handle. Scrubbers are not yet set at perfect angle on their handles, so as invariably to give full effect to the user's efforts; and so on.

A SIMPLE BUT QUITE PRACTICAL VACUUM CLEANER

is shown in Fig. (6). It consists of two metal tubes, screwed together. In one tube is an air-pump; in the other is a fine strainer. The flat base, which rests on the carpet, table-cover, cushion, chair-seat, curtain, coat, or skirt,



FIG. (6).

from which dust is to be removed, is perforated with tiny holes. When in use the cleaner is kept steady by the long wooden handle, pressed against the worker's left hip by the corresponding hand. The right hand slides one tube up and down on the other, a movement which causes the air-pump within to "suck up" air through the perforations in the case. This suction draws with it the dust, ashes, or other forms of fine dust we desire to remove.

If any witness be required to the good and effective thorough work of this little appliance, it will be found in the restored colour of the material cleaned. If further proof be needed, unscrew the outer tube and empty the contents of the strainer on to a piece of paper—a heap of the finest grey powder will testify to the "sucking" power of the little pump. This dust is too fine and deeply ingrained to be removed by the use of ordinary brushes, no matter how vigorously applied.

A small vacuum cleaner, such as this, does not remove dirt from surfaces such as linoleum, oil-cloth, or boards; and in wet or cold weather it is an awkward problem how to clean floors of these materials, when to wash them means a damp floor for hours afterwards. It is true that tea-leaves serve to collect the dust on linoleum and oil-cloth, but unfortunately the supply of tea-leaves does not always equal the demand. Personal experience has shown the economical efficiency of

CERTAIN OF THE "DUSTLESS" PREPARATIONS

now on the market, small quantities of which can be advantageously sprinkled on the floor before sweeping.

It is surprising to see how a good preparation collects and holds the dust. It must be applied with a hard broom, the heavier the better. One of these preparations is used daily on the cork linoleum of a passage-way and kitchen in which there is much traffic of men's nailed boots; the surface is left almost as clean as if scrubbed, yet no kneeling is called for nor any water required.

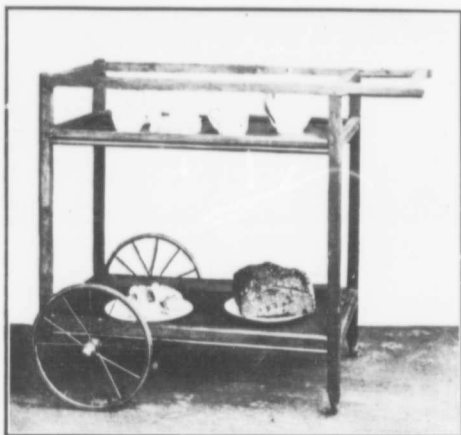


FIG. (7).

Another incalculable labour-saver is shown in Fig. (7).

A WHEEL-TRAY OR TEA-WAGON.

This can be made at no great cost of time or material. Everything required for the meals of five or six persons can be wheeled to and from the dining-table in one journey from kitchen to living-room or verandah, with no strain on back or arms, and with a saving of countless steps. The tray illustrated was made as an early effort in the art of carpentering. The dimensions are given in Fig. (8). The wheels of a child's mail-cart were used to support the

front, and strong castors were fixed to the legs at the back. The wagon could be firmly secured with screws, though, in the case of that shown in Fig. (8), wooden pegs were passed through the joints.

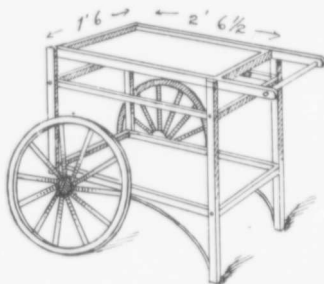


FIG. (8).

LABOUR-SAVING DEVICES IN THE LAUNDRY.

In the first place, has not the day arrived in which a small laundry fitted with washing-machine and mangle should be built in connection with every home? Now that we are fully aware of

THE REAL CONSTITUENTS OF DIRT.

It is unsavoury, not to say objectionable, that clothes more or less saturated with organic dirt from the skin and other sources should be washed in the kitchen, the place above all others in the house where the most scrupulous cleanliness should reign.

THE HANDLING OF HEAVY, WET SHEETS

is the cause of considerable ill-health among women and young girls. Some of this weight-lifting is saved and the washing better done, at a cost of only a few dollars, by the use of a washing-machine with wringers attached or one of the small, cheap, and effective suction washers lately put on the market.

A MANGLE SAVES MUCH IRONING.

while the good appearance of sheets, cloths, and towels when well mangled maintains a high standard in domestic details.

Certain articles must, however, still be ironed, and Fig. (9) shows

AN EXCELLENT AND CHEAP DEVICE FOR USE WITH IRONS

which reduces much of the work involved ordinarily in their nice and careful keeping. These "slip-ons" are made of nickel, of which the surface is always bright and smooth. The heated iron is held in position by the springs, which are quickly fastened into their respective catches. Once used, the worth of these "slip-ons" is fully realized, and their cost is very small.

AN ALCOHOL IRON

is also to be strongly recommended, especially for summer use. Attached to this iron is a tiny tank, from which gasoline or wood-alcohol passes into tubes within the frame of the iron. Once the gasoline or alcohol is set alight,

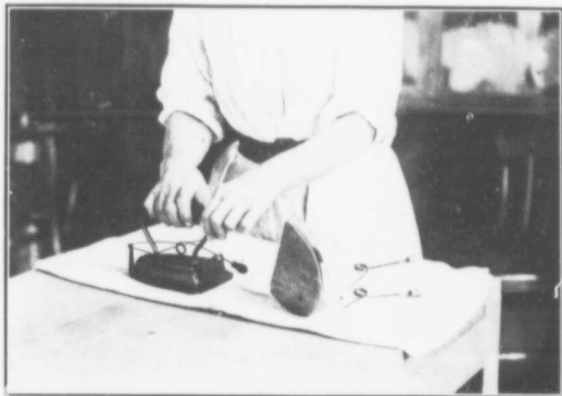


FIG. (9).

this iron remains hot, without further attention, for two or three hours. It can be used equally well in any room, or out on the cool, shady verandah in hot weather. Here is a wedding or birthday present, indeed, worth the giving and receiving.

It is, however, in connection with

KITCHEN EQUIPMENT

that most devices are at present available to increase the efficiency of daily doings. The gradual collection of those now to be mentioned is strongly recommended, though, of course, as time goes on they will be superseded by further improvements.

(1.) THE FIRELESS COOK-STOVE

must be again given a prominent place among equipment for efficiency. Fig. (10). Food prepared in a good make of cooker is wholesome and relieves the cook of much trouble in supervision. Especially is this so in the case of stews and roasts. Of course, the receptacles must be kept clean; but if they are promptly washed out after the removal of the cooking-pails, the trouble is very slight. It is also a good plan, too, to rub an oiled rag over the seams of the cooker once or twice a week; rust is thus entirely controlled. When choosing a cooker, select a make with rounded rather than sharp edges and corners; this "tip" represents a considerable saving in cleaning the appliance.

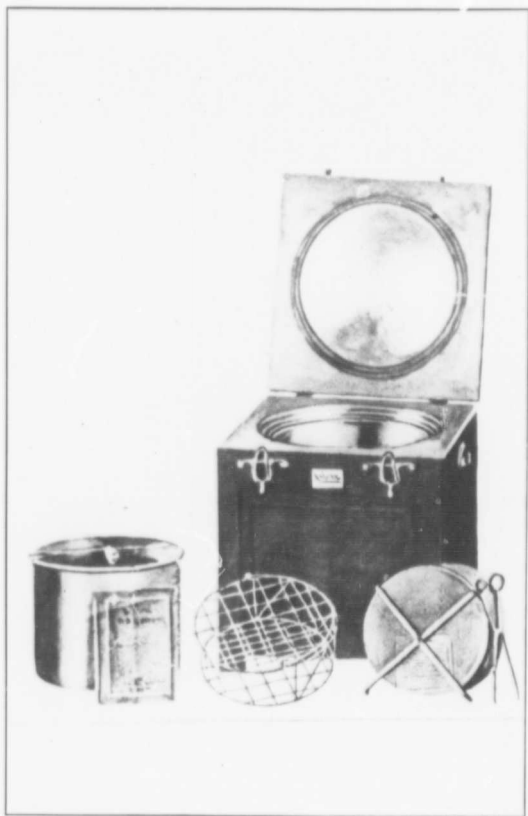


FIG. (10).

(2.) THE STEAMER

must also be again mentioned, for it combines efficient work with much saving of labour. A useful form for steaming rice, vegetables, or meat dishes is shown in Fig. (11).

(3.) PAPER-BAG COOKERY.

though discussed at length in Bulletin 36, must be included in any list of labour-saving devices in the kitchen.



FIG. (11).

(4.) A DOUBLE BOILER

for milk or cereals—see Fig. (5)—is now presumably to be found in every house, though, in future, readers are strongly advised to purchase seamless and rounded boilers, or at least to press for their production.

(5.) A PLATE-RACK,

one form of which is shown in Fig. (5), economizes time and cloths when washing-up. In Western Europe wooden plate and dish racks are fitted in even the humblest homes.

(6.) A BREAD-MIXER.

Fig (12), should find a place wherever bread or cakes are home-made. Firmly clamped to the table, it leaves both hands free; the kneading-rod is turned by the handle with a maximum of effect and a minimum of labour. Bread-making becomes more certain in its success, as well as much more rapid in its performance.

Here is another "tip" given by Mr. Charles Barnard, of the Housekeeping Experiment Station: First warm a compartment in the fireless cook-stove by locking into it a pail of boiling water. Set the dough to rise in this warmed compartment; there will be no risk either from draught or falling temperature.

(7.) A USEFUL CAKE OR PUDDING MIXER

is seen in Fig. (13), which owns a second fitting, called the "mixing fliers" (shown lying by the side of the mixer). This fitting is used for all kinds of soft batters, for whipping cream or beating eggs or sauces. The mixer is made of one piece of sheet steel, so that the rather tiresome crevice at the bottom of the bread-mixer is avoided. Later on, no doubt, bread-mixers, too, will be constructed also in one piece.

(8.) A GROUP OF USEFUL DEVICES

is also shown in Fig. (13).

(a.) *Pudding-boilers*.—The "Queen" pudding-boilers, with their well-fitting, easily slipped-on lids, are tolerably well known; but the "College"

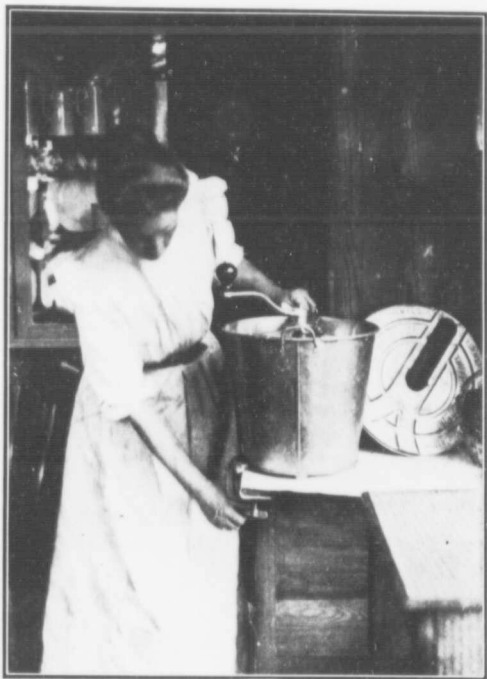


FIG. (12).

pudding-boiler (on the left), invaluable for roll puddings, meat-rolls, etc., though equally effective, is not apparently familiar to Canadian housewives. These are perforated metal cylinders, and have for their object the same end as the covers of the "Queen" pudding-boilers, viz.: the abolition of the pudding-cloth, an article most unsanitary, unless absolutely clean, and that is hard to accomplish. The cylinder of the "College" pudding-boiler is hinged, the two halves being kept in position by long skewer-pins. The pudding or meat or other roll is wrapped in a piece of greased paper and placed in one half of the boiler; the second half is skewered into position and the cylinder is placed in the steamer. It is easily cleansed in boiling soda-water and dried off.

(b.) Flour-sifter and aluminium cup-measure complete this group of kitchen conveniences, but are too familiar to call for further comment.



FIG. (13).

(9.) A CRUMB-SCRAPER

is shown in Fig. (14), which is equally serviceable in reducing cheese, peed, suet, or bread to the finest crumbs. No more useful article is to be found in the kitchen, for it saves time and infinite labour.

(10.) THE UTILITY COLANDER.

shown in Fig. (15), illustrates a praiseworthy effort to replace the labour-making sieve. Soups, unfortunately, must be strained, jellies or preserves must be freed from skins and seeds. To rub such substances through a sieve involves much time and much work. In this metal colander the perforations at the bottom are as fine as is the mesh of most sieves. Inside the bowl a broad, bent blade is fixed, which, as it is turned by the handle, presses the liquids or pulp very rapidly through these tiny holes, leaving the colander coated within by the skins and seeds. An elastic spring allows the blade to be released and removed, when the rounded bowl of the colander is easily cleaned from the debris. The whole process is quick and effective, while the utensil is practically everlasting. The iron standard supporting the colander is detachable, so that both it and the bowl can be conveniently cleaned and equally conveniently hung up out of the way when not in use.

(11.) THE SOAP-SAYER, ETC.

The soap-saver and egg-whisk—see Fig. (5)—possess widely recognized advantages; but reference is permissible to one or two more small, inexpensive, but valuable, additions to kitchen equipment.

An enamel pastry-board is easier to keep clean than the conventional one of wood. A bread and bacon slicer—see Fig. (5)—is another convenience, for it ensures the rapid cutting of slices of similar thickness, according to the setting of the simple fitting.



FIG. (14).

A "hipped" saucepan needs no further praise, and probably most of us use a large wire basket, such as a large-size frying-basket, as an aid in peeling fruit during the preserving season.

WHEN FRUIT, SUCH AS PEACHES, IS TO BE PEELED,

pile it into the basket and lower it for a few minutes into a deep pan containing boiling water, plunging it subsequently for a moment into cold water. The skins will then peel off the fruit with the greatest ease and rapidity.

A wide-mouthed funnel is another "preserving season" necessity, for it economizes time and saves much messing of the stove or table with split syrup.

(12.) THE KITCHEN CABINET

is a quite wonderful "step-saver" as well as an aid to efficient work. Long experience testifies to its practical convenience, not alone as a saver of steps,



FIG. (15).

but as a suggester of many pleasing variations in the daily menus of a home, where strict economy has to be practised, yet where a point is also made of providing food that is appetizing, nutritious, and attractive.

It is not cheap to buy in the first instance, but it repays its cost a hundredfold, as experience proves its value. The following are just a few of the points which ought to be sought and found in an intelligently designed cabinet:—

The shelves are easy to keep clean, because coated with white enamel. They are of a height and width which allows them to be filled with jars, bottles, and tins of ordinary and useful sizes and capacity. They are also long and numerous enough to accommodate all the ordinary cereals (rice, sago, cornstarch, etc.), and sultanas, raisins, peel, flavourings, pickles, sauces, spices, herbs, and so forth, which are, or ought to be, found in every well-equipped store-room. Two bins below the shelves hold 15 lb. respectively of granulated and demarara sugar; while closely fitting metal drawers can be filled with cooking-soda, pepper, ginger, etc. Necessary domestic drugs are secured in a locked cabinet. Paper bags for cooking, lamp-wicks, paper napkins, etc., find a home in the three central drawers. The flour-bin stores 100 lb. of flour, and a week's supply of bread is kept fresh in the corresponding, well-ventilated metal cupboard. Both bin and cupboard are on rollers, so they are moved with a minimum of effort. A deep cupboard fills the middle of the lower half of the cabinet, and is useful as a place in which to keep a supply for daily use of preserves, marmalade, syrup, etc. Above is

a drawer divided into compartments for kitchen-knives, string, and other sundries. Chopping and pastry boards are slid beneath the zinc-covered surface of the table portion of the cabinet, which can be extended on each side by hinged flaps. The easily closing doors maintain cleanliness, while everything needed in the grocery line is collected under the cook's hand and open to her eyes. Resting on her high stool between the cabinet and table, she ought to prepare most dishes efficiently and effectively.

THE BUSINESS-MAN SITS THUS AT A DESK

furnished with a multiplicity of "pigeon-holes" and drawers for his correspondence and papers. All the tools of his trade—pens, ink, pencils, wax, rubber rings, stamps—are all at hand.

THE CHEMIST WORKS IN HIS LABORATORY;

his apparatus, chemicals, water, gas, etc., are all conveniently arranged, often at great cost, in the manner most suited to his work.

In the near future, the housewife will also realize that *her* business—the maintenance of a high standard of health in the family—calls for similar labour-saving devices to those long customary in every up-to-date office. The world at large must soon surely perceive that the intelligent practice of the arts of cooking and cleaning demand conveniences corresponding to those habitual in every scientific, modern workshop.

GOOD WORK NECESSITATES EFFICIENT EQUIPMENT.

And what work is better than that of safeguarding the moral, intellectual, and physical well-being of the human race?

WOMEN AND ECONOMICS.

Women, who are the chief spenders of the world, are curiously untrained in the subject of right expenditure. The spirit of self-sacrifice, so highly developed in most women, their strong conservative instinct, the very familiarity of their practical contribution to the world's work and welfare, combine to blind them to some aspects of the demands and opportunities of modern life, and to confuse them as to "relative values"; the term itself being probably unknown to most of them. Now, in some instances

TO SPEND MONEY JUDICIOUSLY IS THE BEST ECONOMY.

To expend strength, which too often means health also, recklessly, albeit unselfishly, is the worst extravagance in the long run. In conclusion, it may be well to point out that

THE OBJECT OF THIS BULLETIN IS TWOFOLD.

It is designed to indicate two lines of wise economy: (1) the saving of *unnecessary* labour, and (2) the coincident increase of effective work. Obviously it is but a brief introduction to a somewhat new and very big question, but if it serve to arouse interest, its purpose will be gained, for the practical results will be gradually reflected in the homes and in the physique of the population of this Province.

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NOTICE.

The Department of Agriculture is issuing the following series of bulletins prepared by Miss Alice Ravenhill, Shawnigan Lake, B.C., to be available for distribution among the members of the Women's Institutes throughout the Province:—

- No. 1. The Place and Purpose of Family Life.
- .. 2. The Preparation of Food.
- .. 3. The Preservation of Food.
- .. 4. Labour-saving Devices in the Household.
- .. 5. Food and Diet.
- .. 6. The Art of Right Living.
- .. 7. The Care of Children.

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- .. 29.—Guide to Bee-keeping in British Columbia.
- .. 32.—Control of Bovine Tuberculosis in British Columbia.
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- .. 34.—Fruit-trees and Black-spot Canker.
- .. 35.—The Place and Purpose of Family Life.
- .. 36.—The Preparation of Food.
- .. 37.—The Preservation of Food.
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- .. 40.—Alfalfa.
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Applications for bulletins published by the Department of Agriculture should be addressed to the Secretary, Department of Agriculture, Victoria, B.C.

VICTORIA, B.C.:

Printed by WILLIAM H. CULLEN, Printer to the King's Most Excellent Majesty.
1912.