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**OFFICIAL PROCEEDINGS**

of the

**First International  
Congress of Farm Women**

(Rural Home Section of the International  
Dry-Farming Congress)

**Colorado Springs, Colorado, October 17-20, 1911**



**Stenographic Record of the Important Acts and  
Discussions, Declaration of Aims and  
Principles, and Officers for the  
Year 1912**



**PUBLISHED BY  
The International Dry-Farming Congress  
Lethbridge, Alberta, Canada**

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# Every Woman Should

Co-operate with the International Congress of Farm Women in its efforts to increase the growth of the spirit of home uplift in the farming communities of the world.

Membership in this greatest of all women's organizations for the benefitting of the farmer's wife brings one in close touch with

## Modern Methods, Modern Ideas and Modern Folk

It is productive of the improvement of our rural homes, of the advancement of scientific and hygienic health rules and the mental and physical betterment of the women of the farm or in the city around which are large agricultural interests and developments.

It aims to interest the boys and girls in the home life on the farm, in the competition of the school, the grange and the fair, in the neighborhood clubs, and in the reading and social organizations, cementing the love for parents with the love for nature and literature.

DRY-FARMING, the organ of the International Dry-Farming Congress, has added a department of Rural Homes, which publishes every month interesting articles by able writers dealing with topics directly relating to rural home life, and it also publishes all the reports of the congress and the preparations making for the annual convention, which this year will be held at Lethbridge, Alberta, Canada, October 21st to 25th.

The Congress aims to secure the organization of rural women, either through Social Centres, Mother's Clubs, Auxiliaries to Farmers' Institutes, Farmers' Clubs, Granges, or Women's Clubs; to promote boys and girls and neighborhood clubs, and in every way to foster the spirit of materially benefitting both young and old, efficiently fitting all for their sphere in rural life.

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MRS. ELEANOR L. BURNS,

Secretary-Treasurer,

Lethbridge, Alberta, Canada.

D. of W.

JUL 21 1916

# THE FIRST INTERNATIONAL Congress of Farm Women

[Rural Home Section of the International Dry-Farming Congress]

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COLORADO SPRINGS, COLORADO, OCTOBER 17-20, 1911

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Addresses Delivered and a Stenographic Record  
of Important Official Acts  
and Discussions

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## The Congress and Its Aims

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The International Congress of Farm Women is a reality, and from the handful of women who met in the summer of 1911 and planned for the first meeting of the Congress, has arisen a strong body of earnest women, banded together in the name of common womanhood for a common end, the uplifting of the homes on the farms. Although auxiliary to the International Dry-Farming Congress, its sphere is in no-wise limited, but embraces the world-wide rural home.

Twenty-eight states, besides Canada and Belgium, were represented at the meetings in Colorado Springs, in October, 1911, and the program given covered largely the scope of woman's life on the farm.

With a splendid personnel of officers, backed by a large and interested band of women, great results are anticipated in 1912 and successive years.

Already two auxiliary associations

have been added to the International organization, those of South Africa, and Belgium, the latter accompanied by an invitation to hold the third Congress in Ghent in 1913.

A large number of state organizations will be federated in the near future and the work will be pushed to its utmost. Headquarters have been established in the Royal Bank building, Lethbridge, Alberta, Canada, and preparations are making for a larger and a better and a broader Congress there October 21-25, with a big exhibit of sanitary, utility and labor-saving devices for the farm home.

Another strong feature of the Congress was the formation of the International Farm Women's Press association, limited to women editors or writers of "home" departments or on "home betterment" topics. This club has undertaken the publicity work for the Congress.

The Congress was called to order by Mrs. William F. Slocum, president of the board of organization at the First Presbyterian Church of Colorado Springs, Colorado, on Tuesday, Oct. 17, at 9 a. m.

After an invocation by the Rev. J. H. Franklin of Colorado Springs, the following resolution, presented by Mrs. Eleanor L. Burns, secretary of the board of organization, was read and adopted:

"Resolved: That, pending the adoption of a permanent constitution and rules of procedure, Article XIII. of the constitution and bylaws of the International Dry-Farming Congress, which provides for voting power, shall be adopted as a basis of the voting power of the International Congress of Farm Women. This article reads as follows:

"Each person entitled to a seat in the Congress shall be allowed to vote upon all matters to be decided by a viva voce action from the floor of the Congress. In case of roll call each state, territory, province or nation when represented by more than 10 delegates upon the floor of the Congress shall be entitled to 20 votes but when the number of delegates thus designated is less than 10 votes, each state, territory, province or nation shall be entitled to 10 votes."

Dr. John H. Worst, president of the International Dry-Farming Congress, welcomed the delegates in a happy little speech in which he commented forcefully upon the gradual improvement in the home life of the farm within the last 40 years. He dwelt upon the desirability of making still further use of inventive genius to relieve the housewife of many burdens, and said that some time he expects to build a farm home along modern lines with pressure tanks for a water supply, septic tanks for the disposal of sewage, a washing machine, a mangle, a bread mixer and other household implements run by gasoline machinery. "The farm housewife should be able to read a magazine while the washing goes on," he said.

Miss Irma E. Mathews, president of the Women's Auxillary Farmers Institutes of the Oklahoma Agricultural college, discussed "The Work of the Institute and What it Offers." She dealt in detail upon the work among Oklahoma women and girls with which she is connected. "Through the women's institutes we strive to help the farmer's wife in the home and to get the farmer's girls into the agricultural college," she said.

"In the college we teach them means and methods for the handling of home problems and the upbuilding of home life, but we strive, above all, to send the educated girl back home as a helper for her mother, and not in an attitude of superior dignity which leads her to believe that she has risen above her early surroundings. This point, to me, expresses the ideal toward which I believe the Women's Congress should strive. To achieve success in the way we have chosen we must not reach down or reach up, but reach out to the women of the farms."

Miss Mathews' address was a fitting prelude to the entire week's discussions. She was followed by Miss Mary Snow of the department of household arts, Board of Education, Chicago Illinois, who discussed "The Beauty of the Home, Within and Without," as follows:

#### BEAUTY OF THE HOME

By Miss Mary Snow, Department of Household Arts, Board of Education, Chicago, Illinois.

If the difference between farm and town life were closely analyzed it would doubtless result in the recognition of the extreme complexity in the life of the town, which so molds the mental habit that only added complexity satisfies and any attempt at simplicity faces opposition practically insurmountable. Every phase of the life in the community becomes in turn the storm center of passionate activity; public health, public beautifying of the town, public safety, public lib-

raries, public schools, public transportation, public light, public child welfare, public temperance, public morals, public drinking fountains, public everything, indeed, are agitated with great ardor—even violence—till even the public school children take up the question and talk glibly and intelligently of the evils, the results and the remedies.

#### Farm Life Develops Independence

In farming communities the very extent of the farmer's lands makes such a farm a community in itself, controlled and managed like a small kingdom. The necessity is rarely present of having the daily life of the farming population of a country or a state concurrently reviewed and dragged forward for scrutiny to judge whether this or that change might not be beneficial to the general condition. A kind of independence results which probably adds greatly to the joys of life; at least it gives the farm dweller vast ground for thankfulness that he is not tied hard and fast to the formalities of the city dweller, who is forever haunted by the thought that his neighbor is outstripping him in the attractiveness of his environment, in the splendor of his social functions, in the cultural education he is giving his children or in the standing he has in church or state.

The farming people give themselves less introspection, less revolutionary change, and conservatism has firmer fixation. The turmoil for the new and startling makes slight appeal.

#### The Spirit of Beauty

Farm women are so over-burdened by the daily task and so conscious of real and pressing needs that the satisfying of their natural hunger for beauty seems to them almost self-indulgence. This attitude towards life is so puritanical, even Spartan, that the intrinsic value to the state of beauty of environment, of the highway, of the vast stretches of dooryard and of the home itself is quite lost sight of. With the beauty of nature all about the farm, with stretches of idle space, with friendly sun, and with

the rich and fruitful soil, every farmer's wife has the opportunity to be her own landscape gardener and to reveal to the wayfarer that she is mistress of her possessions.

The Chinese have a proverb which says, "If you have two loaves of bread, sell one and buy a lily." This doubtless accounts for the matchless beauty of their porcelains, the marvel of their embroideries, their almost miraculous carving in wood and ivory, the intricacy and fineness of their weaving and their inimitable lacquer. The Japanese have a similar proverb bred into the habitual thought of the race. The Dutch, in their early commerce with China, caught the spirit of beauty and produced, in pure imitation, the beautiful blue china which is a characteristic commercial product of Holland to this present time.

#### Beauty in Town and Country

In America, pioneering has occupied the mind and strength of the people so powerfully and so restrictingly that beauty in town and country, in church and home, in school and marketplace, and in food and raiment, is but just beginning to arrive as a necessary factor in all we do or think. The presence of this subject on the program of a Congress of earnest women gathered from every section of the country (of the world perhaps) is significant. It would seem to mean that the women had willingly bent their backs, cheerfully carried burdens, intelligently used their powers to give the farm its place of dignity in the nation beside which everything else seems to be sinking into insignificance, and that now they are ready for idealization. Grace and charm must result, giving new and increasing significance to the already purposive, effective, self-effacing and literally Herculean work of the women of farming lands, east, west, north and south. The city woman is having precisely the same experience. Commerce recognizes this reach after the ideal, this pursuit of beauty for its own sake and, to satisfy the new, rushes into the shops, occasionally, the good; often

the tawdry, the bizarre, even the atrocious. We have had insufficient education. A departure from the commonplace is accepted as beauty; a daring mingling of colors passes for taste. Fabrics are diverted from their significant use, glass is as acceptable as gems, architecture introduces materials wholly foreign either to use or environment and the scamper after novelty is breathless and confusing. One clear note, however, is heard through them all, and that is the call of the awakening desire for beauty in this country. The progress is slow, but gratifyingly constant and increasingly successful.

#### Harmony in Decorative Effects

In considering the beauty in and about the house one very naturally thinks of the home she has and the home she would like to have. A house has individuality, quite as a person has. It does or does not harmonize or "compose" well in its environment. It would seem as if that would be the first question to be answered. Should this house be so planned that it will seem to belong to this hillside, to this hilltop, to this level plat, to this lakeside, to this cliff, to this bluff, or to this valley? An artist, running the country over trying to find a spot worthy of his skill, succeeds at last, but idealizes the picture by changing the position of the cottage or castle because it "composes" better. He places a gray stone house half way up a wild and rugged hillside because it thus becomes naturally a part of it. He makes us see a low and lovely cottage of graceful roof lines in the valley and the long, low rambling houses on the plain.

Once to become possessed of the necessity of having the house appear to be a natural and fitting growth from the spot in which it is placed, is to be ever after haunted by it and if opportunity full and free comes for placing a house as one would like, with it must come the obligation to fulfil to the utmost the law of good composition. If, on the other hand, one's house is already on the plain, abruptly

rising tall and insistent, modification is then possible by placing trees which, by graduation, shall reduce the house to harmony with the spot. If the house, however, is small, beware of tall individual trees which will draw and weaken the house. Shrubs and foliage, plants of choicely harmonizing colors will often unite a house to the situation when its bare abruptness in rising from the ground would seem to threaten its departure.

#### Landscape Gardening

If women could realize the amount of joy which the weary traveller experiences in suddenly coming upon a dooryard which some beauty-loving soul has flooded with well selected color, time and strength would, somehow, be found for the planting. The writer knows a spot, far away in a wind-swept island of the sea where over the end of a house, silver-gray with the beat of the ocean storms, climbs a splendid clematis, covering nearly the whole end of the house. In August it is a wall of effulgent blue, gray rocks, gray house, and this wealth of color past description. Travellers may reach the next town by a shorter route, but those who know this wayside beauty spot go the longer way. They have their reward, too, because farther on is another house as grey and as storm beaten, and around two sides of this house, close to the wall, is a hedge of dark red geraniums. This is in New England, where bloom is only to be had by hard coaxing.

Lilacs and hydrangeas are most satisfactory shrubs for the dooryard. The beauty of dogwoods, sumacs, barberries and bittersweet comes late, with a flash of color brilliant and exhilarating. Throughout the summer are processions of bloom coming up to take each others' places. One must plant with caution and with one's color appreciation on keen edge. It is easy to spoil a lovely garden by bad color combinations. Suppose one could give up a bed 10 feet square to tiger lilies, surrounded by white phlox, or pink hollyhocks against the

right color of house with a generous foreground of white phlox. A large bed of Cape hyacinths and marigolds would make a joyous spot in the landscape. Often, to give somewhat of privacy to a house, a hedge of box elder or roses, or indeed, any of the endless hedge-row plants and shrubs, are charming and enticing, as they also are in making borders to the entrance to the house. This entrance will be unpretentious, low and small, with sufficient ornament to give welcome greeting, but no more.

#### Effective Architecture

The colonial entrances, as the colonial houses, are our best types. The colonial houses are simple, refined, unostentatious. Doorways, windows, mantels, staircases, all bear witness to the scholarly ancestry of the people who built them. This culture remains in the Greek capitals, the stately lintels, the graceful lunettes, the fret and many classic bits of ornament introduced with great self-restraint and dignity. The style commands great respect and emulation, both in this country and in Europe.

Architects make constant pilgrimages to the home of Thomas Jefferson, designed and built by himself and to that masterpiece of his ability the group of buildings which make up the university of Virginia. The Lee mansion is a similar example of the matchless beauty possible in the adaptation of Georgian architecture to local possibilities and needs.

Whatever color the house receives let it be a single color. Any house loses dignity by the spotting and breaking up given by contrasting colors or "trimmings" but of a small house nothing seems to remain. The roof may effectively be done in the beautiful greens or reds which are so well controlled in stains and so extremely beautiful in tiling. The colors now easily obtained in concrete, colored in the mass and therefore imperishable, promise great beauty in buildings in the immediate future. The loveliness of vines on some of the beautiful

red or blue cement houses can readily be imagined.

#### Harmonious Colors

The inside of the house is the place where the fine, restraining hand of the woman of superior taste must be exercised. She must work out her philosophy of house furnishing. It must not be accidental or temporary. Regardless of changing style or fancy she must have an abiding principle which underlies what she does. She will know that simplicity is the keynote of success in the pursuit of beauty.

Bismarck declared he could make no plans in a room where colors were inharmonious. Discords in music annoy us, and we are conscious of the precise cause. Discords in color harmonies annoy us also but we do not analyze the cause and the discords persist.

Rooms opening into one another should have color relations well thought out and carefully controlled. The room in which one is at the moment should, in some way, pronounced or subtle, nevertheless really pitch the tone of the rooms leading out of it. For example, a room in brown might easily have a rug and hangings with a pronounced green note, which would thus lead naturally and attractively to a green library or living room with blue well introduced in some of the furnishing, which again would fix the note of the next room, and so on throughout the house—always the invitation, subtle and graceful and the echoing color, unmistakable and peace-making.

A gray wall is always safe and beautiful as background for a few pictures which one permits. Pictures are dangerous in themselves, because they tend to swarm over walls; but when they are in bizarre and glittering frames the last calamity has befallen us. A great artist is known to take a plain gold frame for his pictures, smear on some black paint and then wipe it off almost completely, thus leaving a dull, gold frame, seemingly under a haze which takes nothing

from the picture. This is indeed a lesson and a rebuke to our gorgeous, gilded horrors. Water colors seem to need a glint of gold, but photographs, etchings and prints are quite ruined by it.

#### Wall Effects

Pictures are, of course, forbidden on any wall which has a pronounced figure, especially on the papers, which are having such a vogue at this time, of "bird" and "basket" patterns in revival of old English hand painted papers. Plain papers are always safe; they retreat walls, (unless they are dark, when they draw them together, thus increasing the apparent size of the room. The beautiful colors in the water paints which are so easily applied make changes in the walls of rooms so simple a matter that a woman can change her rooms at any time she chooses. There are some excellent oil paints on the market which give a dull and pleasing surface, instead of the hard shine ordinarily characteristic of oil and pigment.

It is generally accepted as law that a figured carpet demands plain walls and that figured wall coverings demand single tone carpets, else the eye is fretted and weary with the incessant stimulation.

A well known authority on household decoration says that the mantel is the family altar on which precious articles alone may be placed; preferably four things; if more than five, vulgarity. These four things may be (1) an article of utility, like a vase; (2) something proclaiming the taste in literature or history of the owner, like a bust of Dante or Lincoln; (3) something of family interest, like an attractively framed miniature, and (4) something quite rare, like a bit of Chinese carving or some Russian lacquer. The plan is well worth testing.

All horizontal lines in a house, like bands or designs on curtains, plate and chair rails, tend to decrease the apparent height of the room, while vertical lines have the opposite effect. The looping back of curtains inevit-

ably detracts from the dignity of a room. It is so strongly traditional to loop them that the aesthetic loss is ignored in most of the houses; but the purpose of the windows must be served and straight, hanging curtains, well pushed to the sides of the window, permit the full daylight to come in.

#### The Dining Room

The dining room of the true house lover is the treasure room. The plate rail is mercifully disappearing. It is a snare, and many an otherwise careful person has been caught with its temptations. Only very beautiful china belongs on it or some good pieces of pewter. Every woman thinks she can select china with wisdom and it is true enough that most women can. They know quality and they avoid undue decoration. They buy with long forecast to their children's children. They cling faithfully to China, Holland, England, France and Austria. They study the color scheme of the room, the general taste of the family and the particular taste of the woman herself. If they consider fineness of line and design, demand straightforward edges without frills or curves, and look well to the graceful shape of the cups they will be quite happy in the result. Much beautiful china is to be found, but it is imported. There is an abundance of good clay in this country, but the design in decoration is almost invariably showy and impossible to the woman of good taste.

There is nothing so difficult to find as silver of simple design. Two firms of silversmiths of great reputation have always in stock table silver absolutely without decoration of any kind. It depends upon gracefulness of shape and beauty of line for attractiveness. There is a sufficiently large number of women who insist in ultra refined simplicity in table service to necessitate the stock being always complete. The silver is very choice, very attractive and a pleasure to the hand. Most women have suffered

from the other extreme and would welcome this type.

#### Simple Furniture

The furniture of the ideal home must be simple, usable, comfortable, dignified and beautiful. It is safe to say that no better furniture is made in the world than is made in this country, and equally true that no worse can possibly be found. It can be laid down as a general axiom that furniture owes its dignity and beauty to line, proportion and fitness to use, rather than to any type of decoration which can possibly be used. No decoration should be used which is not subservient to and a part of construction.

The revival of Sheraton, Chippendale and Adam models have performed miracles in the way of refining taste and sweeping out the over-decorated and preposterous pieces which, not very long since, were to be found in every household of the land. Mission furniture has helped much, though its simple strength and dignity have been imitated by unintelligent cabinet-makers who have created a lot of bulky, ugly, and unweildy furniture quite unlike the models.

The sleeping rooms of the home must, above all, be simply, even sparsely, furnished. The well need calm and serenity as do the sick. Many ideal hospital rooms, with their quiet walls, their furniture kept spotlessly clean with a minimum of toil, the one choice picture, the vase, the flower, the absence of upholstery, of dust catchers of any kind; the linen covers so fresh and clean, linger in pleasing memory as experiences one would like to repeat in the normal life outside.

#### The Kitchen Arrangements

The kitchen of the woman who really commands her own craft is most important of all. It must be like the perfect potato, not too small or too large. It must have plenty of sunlight. Its walls should be the color most favorable to the temperament and taste of the director of its activities. These walls must be hard and of gleaming surface, easily washed

and obviously clean. Every tested device for labor saving should be in its equipment and the utensils should be as carefully selected as to color form, and material as is any of the equipment of the library or living rooms. It is the woman's office, her work room, her laboratory, her studio, often her reception room, her dining room, her sewing room at times, her reading room, her study; she does everything there, in the weeks' course but sleep. It should therefore be a source of satisfaction and pride at all times in its fitness to the needs of its commander-in-chief. We visit a doctor's office and are favorably or unfavorably impressed by the kind of equipment he has and the way it is kept. Every professional worker reveals his attitude toward his work and himself in this open and easily interpreted way.

The woman of the house is at once the most highly specialized and the most generally valuable person in the world, and her workshop should reveal her methods and opportunities. Farm women are the wall at all of our backs; when they falter we all stumble; when they are discouraged, we all faint; when they are hampered by lack of or wrong equipment we all hunger and thirst. They are the housekeepers of the farm and the farm is the treasure house of the race.

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#### FOOD VALUES

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By Mrs. Mary Pierce Van Zile, Professor of Domestic Science and Dean of Women, Kansas State Agricultural College, Manhattan, Kan.

Man has ever been desirous of making new discoveries and of giving to the world new ideas. For this purpose he has explored land and sea, even to the uttermost parts of the earth and to the depths of the ocean, in quest of their secrets; but, until recently, he has been oblivious to one of the greatest of problems, since it deals directly with human life itself. The food we eat has been left largely

to chance, though blood and muscle, bone and tendon, brain and nerve are dependant upon proper food supply. In years past the character of the food of man was, to a degree at least, determined by where he lived; but modern transportation facilities have brought the markets of the world to our very doors. Owing to the wide range of climate and soil the United States produces an abundance of a great variety of foods. It is a question as to whether the nutritive material furnished is any better, but the result surely has been to add greatly to the complexity of the problem of the housekeeper. How many housewives are there that recognize that there is anything more than a passing fancy attending the order of a dinner? The tendency is to crave variety and to furnish something new and novel to satisfy the capricious appetite. This tendency has been encouraged in many families until nothing less than a Delmonico spread will satisfy.

#### Scientific Investigation

There is encouraging evidence of an awakening to the importance of this greatest question. Scientific study of the human food problem is, however, recent. Millions of dollars have been spent for research in the development of a system of feeding for domestic animals to insure efficiency, but, until recently, we have been content to remain in ignorance of what factors contribute to the development of an efficient body and mind of mankind. Intelligent housewives at the present time are desirous of knowing whether the menus they are serving contain all the elements that are needed in the development of an improved humanity and are asking intelligent questions relative to their problem.

Scientific study of foods began in Europe less than three-fourths of a century ago. Atwater was the pioneer American investigator, but he was soon followed by a score of others and recent years have shown a marked development along the lines of human nutrition. There is much yet to be learned and there is a great need of

funds to carry on research work; but the present day finds us with a fund of useful knowledge to which the housewife may have access, if she will.

To rightly understand the conditions that affect the welfare of the body one must first know its structure and activities, and must recognize the intimate connection between the body and the foods with which it is supplied. We think of the body as a whole, and fail to realize that it is the result of the working together in perfect harmony of numberless living cells. Those cells are so small they cannot be seen by the naked eye; yet each individual cell has its work to do. Health is the result of normal activity of all these thousands of cells; disease is the result when some of these cells or groups of cells fail to perform their work. To have a perfect body it is therefore essential to have well-nourished individual cells.

#### Food Combinations

These cells have the power of utilizing just the food needed for their own particular development; but it is quite necessary that the proper elements be furnished them. Chemistry teaches us that of the 80 or more chemical elements, 12 are always found in animal bodies, while 10 or more others are occasionally found. Certain of these elements—carbon, hydrogen, oxygen and nitrogen—are the great force producers of the body, and may be grouped together as the predominating of nature's chemical elements. A second group would include sulphur, phosphorus, calcium, magnesia, sodium, potassium, iron and chlorine. This latter group enters mainly into the formation of tissue, and each element has its specific function. If the body is not supplied with them a serious derangement occurs. For example, lack of iron impoverishes the red blood corpuscles, lack of potassium salts produces scurvy, and lack of sodium chloride, (common salt) interferes with the nutrition processes. Complete withdrawal of these constituents would cause death.

Having determined that these elements are essential constituents of the body, the next step is to determine how they are supplied. It is hard to conceive that carbon, familiar to us as charcoal; oxygen, which we breathe in the air; calcium, known to us as lime, etc., can be utilized as our food. We recognize that they cannot well be taken as carbon, oxygen, calcium, etc. Plants alone can utilize these elements directly; animals are dependent upon tissues already formed from these unit elements. These tissues may be either animal or vegetable. Consequently our bodies take their food as combinations of these elements in the form of animal or plant tissue. That food can build and maintain the body structure is due to the fact that it is composed of these chemical elements. It is the varying combination of those elements which produce the different foods.

There are five unit combinations. For convenience of study special names are given to them. They are called carbohydrates, fats, proteins, mineral salts and water. Those are spoken of as foodstuffs, or nutrients, and all food materials are made up of one or more of them.

Their functions in food are to build and repair the various tissues of the body and to supply it with heat and muscular energy.

#### Functions of Food

All of the foodstuffs are needed by the body, and there is the best development when these elements are in a certain proportion. Theoretically, the body could be nourished by a single food material containing the requisite ingredients, but no one food material contains these in such proportions that it would by itself meet all the requirements of the adult body; therefore a mixed diet is most reasonable and satisfactory. The intelligent and careful housewife will learn to group her menus in a way that each meal will supply all of the elements in the proper proportion, otherwise a one-sided diet will result, that falls of the necessary balance. In order

that each meal meets the needs of the body it is necessary that it contain some tissue building foods, (meats, eggs, milk,) some food supply heat and energy (butter, bread, potatoes and cereals,) some mineral salts (fresh fruits and fresh vegetables,) some water and some foods which supply flavor. If a person consumes a large amount of beef or mutton and little vegetable food, the diet will be too rich in protein material, the tissue building constituent and too poor in carbohydrates, the energy and heat producing constituent. On the other hand, if pastry, bread and butter are consumed in preference to a more varied diet, the food will furnish too much energy with too little building material.

Harmful results are much more likely to occur from over-supply of food rather than from under-supply. An excess of any one or all of the different groups will cause derangement of the body cells. The excess of tissue building foods—meat, eggs, and milk—are most readily noticed because they leave a greater percentage of waste than do any of the other classes. The result is noted in the overtaxed excretory organs. Rheumatism, gout, liver and kidney troubles follow. An excess of carbohydrate food—the starches and sugars—causes the development of a large amount of acid, which interferes with the normal digestion. It should always be remembered that the ideal diet is that combination of foods, which, while imposing the least burden on the body, supplies it with exactly sufficient material to meet its needs, and that any disregard of such a standard, must inevitably prevent the best development of our powers. A balanced dietary, then, is one in which the foods are in such proportions as to provide constituents in such relative quantities as experiment has shown to give the best results under a given set of conditions.

#### Valuable Bulletin

The old method of calculating quantities of food for balanced meals is

a tedious process and not many housekeepers would find time for the necessary computations. However, Prof. Fisher of Yale has devised a much simpler method, which appears in a bulletin entitled, "Food Values," issued by the American School of Home Economics, 606 W. 69th St., Chicago, Illinois.

In explaining this method it is necessary to explain that the energy latent in food is developed as the food is consumed in the body. Oxygen is necessary for the transformation. The process is similar to the burning of coal in a furnace. As different coals differ as to the amount of heat

Experimental evidence goes to show that we need between twenty and thirty of these standard portions, each twenty-four hours, the exact number depending on our work, age, climate, etc. Our problem would be easy were each 100 calorie portion equal to all others; but, as has been explained, the relative proportions of the different food constituents must be maintained. For the illustration we have taken 24, 100-calories portions for the day's ration.

#### Daily Menu

In selecting these menus care has been taken to maintain a proper balance of food constituents; to give the

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#### QUANTITY OF FOOD FOR A WELL-BALANCED MEAL.

Beef, round, boiled (fat) a small serving ...	(1.3 oz.)..yields 100 calories
Beef, round, boiled, (lean) a large serving ..	(2.2 oz.)..yields 100 calories
Lamb, chops, boiled, one small chop... ..	(.96 oz.)..yields 100 calories
Eggs, hens', boiled, one large egg ... ..	(2.1 oz.)..yields 100 calories
Shredded wheat, one biscuit ... ..	(.94 oz.)..yields 100 calories
Bread, white, home-made, one ordinary thick slice ... ..	(1.3 oz.)..yields 100 calories
Butter, one ordinary pat .. ..	(.44 oz.)..yields 100 calories
Corn, sweet, cooked, one side dish... ..	(3.5 oz.)..yields 100 calories
Peas, green, cooked, one serving ... ..	(3. oz.)..yields 100 calories
Potatoes, baked, one good sized ... ..	(3.05 oz.)..yields 100 calories
Apple sauce, one serving ... ..	(3.9 oz.)..yields 100 calories
Spinach, cooked, two servings ... ..	(6.1 oz.)..yields 100 calories
Strawberries, two servings ... ..	(9.1 oz.)..yields 100 calories

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given off, so different foods have different heat values. In measuring these heat values, the standard of measure used is the calorie, which is approximately the amount of heat required to raise the temperature of one pound of water 4 degrees F.

Prof. Fisher, in his calculation, takes the quantity of food necessary to yield 100 calories of heat to the body as a standard portion. It works out very conveniently, for in the case of most of our common foods an ordinary serving forms a 100 calorie portion.

necessary mineral salts; and to also furnish sufficient variety to satisfy the appetite.

Economy of food materials is entirely compatible with good living. The cheapest food is that which supplies the most nutriment for the least that which is cheapest and at the money; and the most economical is same time best adapted to the needs of the individual for whom it is intended. The plain, substantial, standard food materials, like the cheap cuts, of meat and the ordinary vegetables,

are as digestible and nutritious as any of the costlier materials. The palate by paying high prices for materials rather than by the skillful cook-

**MEALS FOR ONE DAY CALCULATED ON THE 100 CALORIE PORTION BASIS**  
 (From Missouri Experiment Station Bulletin)

Name of Food	Quantity	Oz.	Calori's of Protein	Calori's of Fat	Calories of Carbo-hydrates	No. of 100-Calories Portions
<b>Breakfast</b>						
Apple, raw	1 Apple	3.65	1.5	3.5	45.	1-2
Oatmeal, cooked	1 ordinary serving	2.8	9.	3.5	37.5	1-2
Cream	1-4 ordinary glass full	1.7	5.	86.	9.	1
Sugar	3 teaspoonsfull	.86	0.	0.	100.	1
Coffee						
Toast	2 large slices	2.6	26.	12.	162.	2
Butter	1 ordinary pat	.44	.5	99.5	0.	1
Bacon, cooked	1 thin slice	.13	1.5	23.5	0.	1-4
Potato, cooked	1-2 ordinary size	1.5	5.5	.5	44.	1-2
Totals			49.0	228.5	397.5	3-4
<b>Dinner</b>						
Soup, cream of Celery	1 ordinary serving	3.15	8.	23.5	18.5	1-2
Potato, mashed	2 small servings	6.28	20.	50.	130.	2
Peas, canned, cooked	1 side dish	3.15	12.5	1.5	36.	1-2
Chicken	1 ordinary serving	3.15	79.	21.	0.	1
Bread	2 ordinary thick slices	2.6	26.	12.	162.	2
Butter	1 ordinary pat	.44	.5	99.5	0.	1
Apple Tapioca pud'ing	1 ordinary serving	2.8	1.	1.	98.	1
Totals			147.	208.5	444.5	8
<b>Supper</b>						
Macaroni, with cheese, cooked	1 large serving	9.7	28.	30.	142.	2
Cabbage, raw, cd. slaw		3.85	12.5	36.5	1.	1-2
Bread		2.75	5.	2.	18.	1-4
Butter	2 ordinary thick slices	2.6	26.	12.	162.	2
Milk, rich, whole	1 ordinary pat	.44	.5	99.5	0.	1
Apricots, cooked	1 small glass full	4.9	19.	52.	29.	1
Cake, sponge	1 large serving	4.61	6.	00.	94.	1
	1 large piece	1.33	10.5	37.5	102.	1 1-2
Totals			107.5	269.5	548.	9 1-4
Totals for day			303.5	706.5	1390.	24
Per cent.			12.5	29.	57.5	

trouble often lies in the fact that we endeavor to make our diet suit our ing and serving of the inexpensive materials.

## Second Session, Tuesday Afternoon, Oct. 17

The chairman announced the appointment of the following committees:

Committee on credentials: Mrs. John A. Widtsoe of Utah, chairman; Mrs. T. F. Van Waggener of Colorado; Miss Grace Sheppard of Idaho.

Committee on resolutions: Miss Mary A. Whedon, of Minnesota, chair-

man, Mrs. W. R. Motherwell of Saskatchewan, Mrs. Agnes Riddle of Colorado, and Mrs. Belle v.D. Harbert of Colorado.

Committee on permanent organization: Miss Mary S. Snow of Illinois, chairman; Mrs. Charles A. Lory of Colorado, Mrs. Mary Pierce Van Zile

of Kansas, Mrs. Duncan Marshall of Alberta, Mrs. J. H. Sheppard of North Dakota, Mrs. H. W. Jeffers of New Jersey, Dr. Ella S. Webb of Minnesota, Mrs. E. A. Smith of Washington, Mrs. W. C. Sturgis of Colorado and Miss Irma E. Mathews of Oklahoma.

The remainder of the afternoon was given over to an address and demonstration of "Variety in the Meal Time Plans for the Farm Home," by Miss Margaret Hoggart of the Colorado Agricultural College.

## Third Session, Wednesday Morning, Oct. 18

The session was called to order by Mrs. William F. Slocum of Colorado Springs, president of the board of organization, who introduced Dr. Ella S. Webb of St. Paul, Minnesota.

### PHYSICAL LAWS OF LIFE

By Dr. Ella S. Webb, St. Paul, Minnesota

I appreciate the honor and privilege I have in discussing with you the laws of physical health in their relation to the family. It is a large, many-sided subject, which is commanding the attention of all who are interested in the betterment of the home and family. It is well worthy of our consideration in this Congress.

An enumeration of these laws, or even an exhaustive resume of them, would be of small value to us at this time, unless we are ready to see with increasing clearness our own personal relation to them and the obligations we assume when we take up the duties of a home, to know the laws of health and to so regulate our households as to enjoy the utmost that health of body can bring to those who are our loving care.

A study of the subject will include a recognition of sanitary laws which relate to the house and its surroundings, and some understanding of drainage, pure air and water, hygienic laws regulating food, clothing and physical exercise, necessary to the development of a strong physique, and of moral laws which make for purity, vigor and health of mind and body.

The physical, mental and spiritual parts of our nature are so closely as-

sociated, so absolutely interwoven that, in obeying the laws of physical life, we gain not only bodily vigor but mental and spiritual strength and development. This is a primal law which encourages us to further research for, if the careful carrying out of the laws of hygiene and health resulted in nothing more than perfect physical development, important though that be, it would fall far short of its requirements.

### Home Sanitation

Scientific investigation during the past few years has waked us to a knowledge of sanitation in our homes and the hygienic laws of cleanliness which deal with causes as well as conditions and while involving more knowledge and labor than has been given to these matters in the past, give a sense of security from lurking and insidious disease which amply repays our thoroughness.

A study of home economics today opens up the whole subject of sanitation in and about a house, involving the location of the home, the drainage of the soil, the construction of the house, the proximity of the barn and out-houses, the water supply, the plans for ventilation and heating and all the more intimate duties regarding the preparation of suitable food and clothing for the family. On the careful study and solving of all these problems depend the health and prosperity of a home.

It may not be out of place to dwell on some of the causes of sickness and ill health which result from ignorance or neglect of sanitary and hygienic living. Since the discovery of the

germ theory of disease the laws of health are more accurately determined and we have been led to recognize the danger of infection and contagion through these invisible germs which multiply so rapidly wherever they are given breeding places. We have been taught that drains and waste pipes must be flushed constantly, that dish-cloths, mops, and garbage pails must have no suspicious odors, that back yards must be as free from insect-breeding refuse as front yards if we would effectually prevent typhoid, malarial and continued fevers, diphtheria and other disorders from taking possession of our homes.

#### Cause of Epidemics

We have learned, some of us by sad experience, that surface drained ground about homes and in small neighborhoods has often been the source of epidemics most serious in their consequences, which we may have attributed to a mysterious Providence, but which we now know was the natural result of the inexorable laws of disease.

No problem that confronts those who live on farms is of greater importance than the proper disposal of sewage. Unless the land slopes in such a way as to make a natural drainage away from house and barn, the soil is saturated with slops and sewage and these, with the old fashioned out-house create a constant breeding place for germs of disease. Heretofore comparatively few country dwellers have felt it possible to afford an independent system of waterworks for their houses, but as they become aroused to the necessity for perfect sanitation they will see it to be a first duty to install a pure water supply for bath, lavatory and kitchen and also to secure a means of conveying beyond the walls of the home everything of a dangerous character which is generated within it. A septic tank, placed far enough from the water supply and the cellar walls to prevent contamination, with traps in all drainage pipes to prevent the backward escape of gas, will save its own expense in add-

ed years of health to the family.

Flies, which a few years ago were regarded as scavengers and therefore beneficial to the human race, are now known to be carriers of disease germs, and are to be fought energetically; fought, not only by keeping them out of our houses by screen doors, windows and porches and by fly annihilators of all kinds, but by the removal of all fly breeding places where filth and decayed matter accumulate. The mosquito, looked upon for years only as an annoyance, has in these later years been found to be not only a carrier of malarial germs but has that within itself which adds to the virulence of the poison, making it a real menace to health.

#### Danger from Flies

When we see the rugged men and the sturdy, rosy-cheeked children on farms we are apt to question the real seriousness of conditions such as we have discussed, but we must remember that physical exercise in the open air, which is the heritage and the fortunate possession of the farmer, gives him such health and vigor that in spite of unsanitary conditions he is able for a time to resist disease. It is, however, a recorded fact that some of the worst epidemics of typhoid fever and diphtheria have originated in some of these neglected and soil-infested places.

#### Pure Air and Food

Air, water and food are the great essentials of life. A man may go for days without food and for hours without water, but deprive him of air for a few minutes and he ceases to live. The state and the country alike exercise some supervision of the food and water supply of the people, but the air is "free" to all, and it is left to each one to regulate the quantity and quality in her home. Unfortunately, air laden with the foulest and most poisonous substances can be inhaled without immediate knowledge of the conditions, but the effects are seen later in headache, drowsiness and other warning symptoms which, in the case of habitually unventilated dwellings,

results in deficient nutrition, loss of vigor of body and mind and of the power to resist disease. We reject more delicately constructed than the dirty food for our stomach while we use dirty air for our lungs, organs far digestive apparatus and needing careful consideration if we would have the best health and strength. Go into the large majority of living and sleeping rooms in a city or country, especially in winter, and you will find a reason for the spread of the white plague which is slaying thousands of our young people all over the land.

#### Plenty of Air

Fresh air, then, is a law of our well being. The average adult contaminates about 5,000 cubic inches of air with every breath, and, in ordinary respiration, an adult abstracts 16 cubic feet of oxygen from the atmosphere every 24 hours, and adds to it 14 cubic feet of carbonic acid gas in the same time. Nearly one-third of the excretions of the body are eliminated from the lungs and another large proportion through the skin.

In the brief time at my command I can only suggest methods of meeting this demand of our nature for fresh air by means of ventilation and outdoor life, methods with which you are probably familiar.

At once we are confronted with the obstacles to perfectly ventilating a house. Economic considerations frequently lead householders to save fuel at the expense of health; again, drafts from open windows are objectionable; also, many persons accustom themselves to an overheated room and catch cold as fresh air is admitted while sitting at work. Science and invention are coming to our aid to overcome the first two objections, and the last can and will be overcome by the exercise of will power and the desire to be well. Public opinion is coming to favor open windows in sleeping apartments and the sleeping porch or tent has ceased to be a fad; the arrangements for absolute comfort of body while enjoying fresh pure air for the

lungs have been reduced to a science along these lines.

In this very important matter of fresh air as a necessity for physical health it has seemed that familiarity with the subject has bred indifference. It is of vital importance to realize that we cannot consume too much pure air; the larger the quantity the greater the amount of life-giving oxygen conveyed to all parts of the body, and the larger the lung capacity the better the health and strength. We will stamp out consumption when we learn this lesson.

#### School Sanitation

This careful supervision we have of our homes should extend to our school buildings, for it is of vital interest to us that the building in which our children spend nearly half their waking hours, whether one-roomed or many, should have the proper ventilating, and heating arrangements; that the responsibility for sanitary cleanliness of outhouses and proper drainage and care of playgrounds should not be left to the teacher, who may be young and inexperienced, but placed in the hands of a working committee who feel the importance of their duty in this regard. (Women are conceded to be very good officers on the school boards.)

Leaving these broader subjects relating to health, we come to what are regarded as the more personal matters which engage the attention of all home makers. The questions as to what shall we eat and drink and wherewithal we shall be clothed presents aspects of this all-engrossing study of health and well being which women all over the country are taking up eagerly. Domestic science is doing much to inform us in regard to balanced rations and the quantity and quality of various foods necessary to get the best conditions of health in the various walks of life and in the different seasons of the year.

#### Well-Cooked Food

We are slowly coming to a knowledge of the fact that well-cooked carefully prepared food plays a very

important part in the preservation of health; that not only do dietetic errors cause indigestion, with its long train of ills, but the tendency to any heredity or acquired weakness or disease is aggravated by improper food or by over-eating. The study of this department of household economy, as it is being taken up all over our country, will result in longer life, better health and more comfort in our homes.

Happy is the man whose digestion is so perfect that he is never reminded that he has a stomach. But even those who cannot boast of such enviable powers of digestion may, by proper exercise and a simple and regular diet, build up health and strength. Let us hope we shall soon get away from the shadow of the frying pan, which has spread its baleful effect over so many lives.

A further study of the laws of hygiene in the home will show the need of physical exercise, even for women who feel that their daily work is quite sufficient exercise. Undoubtedly some muscles are overtaxed in the daily struggle with brooms, stoves, sewing machines; but there are unused muscles even in this vigorous warfare, and if a few minutes were given to strengthening these, it would develop general strength for over-fatigue of those most used. When the importance of physical culture is understood as it should be, there will be a course of training for girls as well as boys in the lower grades of every school as it is in the high schools. Bad habits of sitting, standing, walking and breathing are acquired, and many forms of bodily weakness developed which unfit the mind for its best work and prevent the shapely, graceful and well rounded physical development so necessary for health.

I have known many men and women who have escaped an early death from tuberculosis by a persistent, strenuous course in physical culture, which has developed them into a robust manhood and womanhood, developing muscular vigor, strengthening lungs and

heart and materially changing even the bony structure of the body.

No heights of physical well being can be reached unless the moral standard keeps pace with it, and nowhere can the highest morality be taught so well as in the home. Parents have the first opportunity as well as the first right to train their children.

#### Character Lessons

Lessons in character must come before lessons in books. Little children must be taught very early in life lessons of self-control; they must learn to decide questions of right and wrong while their judgment can be directed by their parents. They should be impressed with the idea of purity in thought, word and deed. They should be given a pure knowledge of the laws of life by their parents. Partial knowledge shrouded in mystery and secrecy comes to children and youth as something wrong, from those who, like themselves, have no true conception of life and its God-giving powers.

I believe that an obedience to the moral law practised at home with the example of absolute purity and love in life and speech by parents, will do the most toward safe-guarding children from those who might give them low and wrong ideals of life. A partial and impure knowledge is weakening morally and physically and leads to a debased and ignoble view of life's duties, which inevitably produces a weaker and lower type of manhood and womanhood. And because these conditions have existed, children and youth have grown up with a lowered standard of morality which is alarming to those who are vitally interested in the future of our young people all over the land.

#### Home Training

No teaching in schools or lecture halls will have the effect of home training upon boys and girls to gain the confidence of children by love and sympathy is the first step towards securing the opportunity to teach, in the best way, the laws which make for the best and purest liv-

ing. Principles instilled into the hearts and lives of children, truths taught them and good habits formed before they are old enough to go to school and mingle with other children, will as a rule, guide them through life.

#### Danger in Ignorance

Mothers shrink from the responsibility of explaining to their daughters the vital truths of life and allow them to enter upon the duties of wifehood and motherhood with only such imperfect and false ideals as have been given them by her associates. Dr. Mary Wood Allen tells of a mother whose dormant conscience woke up to a half-formed purpose of speaking to her daughter and she began by saying to her "I think you are getting old enough now to know some things' and I want to tell them to you." The girl replied, "You needn't mother, the girls have told me all about it," her mother's reply was "I am glad you know already, for now I shall not have to bother about it." Not a question of what she knew or what had been told her, when not only her physical nature but even her moral perceptions might have been warped and injured by the crude, probably untrue and misleading instruction of those of her own age.

#### Parents Responsible

Mothers and fathers need to be awake to the gravity of conditions as they exist at the present time in our country. Ignorance of the situation may be an excuse but it cannot any longer be presented as a reason when facts are so patent to all who investigate.

This shirking, or perhaps it would be better to say, this policy of silence, has resulted in generation after generation growing up with no definite ideas along these lines.

Let me give you some statistics which may have been the result of this easy sense of security in homes as upright and moral as our own. "Each year in our country 770,000 boys cross the border line from boyhood into manhood. If they could pass be-

fore us we would gaze with pride on their sturdy figures and look forward to the day when these strong young citizens should take up the burden of our great nation with clear brains and steady hand."

#### Results of Ignorance

Of this great army 450,000, almost two-thirds, are doomed to become victims of most terrible diseases, 90,000 of them before they reach the age of 21 years.

Thousands of innocent girls have this year been lured, by hope of love or pecuniary gain, from happy, virtuous homes and loving parents to swell the ranks of the white slave traffic, to live a life of shame and meet an untimely death, because they are ignorant and untrained in the knowledge of themselves and of the world.

Add to this appalling statement the weakened, demoralized lives of those who have fallen into habits of cigarette smoking and liquor drinking, many of whom forged their chains in childhood or youth, and we get some idea of the tremendous importance of a knowledge of the laws of life which, broken or disregarded, work such deadly destruction on our young people, our homes and our country.

But the laws of life are benevolent and kindly, and they make for happiness and comfort in the home when we know them and, with the courage of conviction, carry them out, taking up the responsibility, not only for ourselves alone, but for those in our homes whose welfare, physical, mental and spiritual, depends upon measuring up to the high standard of healthful life.

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#### FARM WOMEN IN BELGIUM

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By L. M. Petitdidier, Acting Consul for Belgium, Denver, Colorado

In behalf, and at the request of the national committee of Farm Women's associations of Belgium, I beg to leave

to submit to this Congress such a synopsis of their organization, its work and purpose, as I have been able to determine through correspondence and various literature and reports sent to me by the committee.

The organization of the farm women of Belgium, though dating back only a few years, has so far been proved to be a pronounced success, and this success is to be measured not only by the many benefits derived by its affiliated members, but is also evidenced by the constantly increasing number of farm women who have become members of local associations.

#### Local Organizations

The desire for organization manifested by the farm women of that country about five years ago, soon gave birth to the formation of local associations called in Belgium "Cercles de Fermieres" or, in English, equivalent, "Circles of Farm Women." Beginning in 1906 with two such local associations, their number had increased to 74 in 1910, with an aggregate membership at this date of some 10,000.

The necessity, utility and success of these associations could not be better demonstrated than by the extreme favor with which they are meeting everywhere. In all of them the fact that the attendance at their reunions grows in increasing progression, is sufficient proof that the farm women appreciate the professional instruction which they receive. These local associations each have their individual organization and executive officers.

It may be said that the principal aim of these "cercles," or associations, as stated in their by-laws, is to instruct their members in any and all things pertaining to the mission of the farm women, to improve her condition and standing and to assist her in better fulfilling her charges and obligations, always keeping in mind, the social, moral and religious progress of the rural population.

In order to best secure the accom-

plishment of their aims, these associations hold every year a number of reunions, at which, well-known agronomists and others of the highest ability are called upon to give courses of lectures on subjects such as domestic economy, dairying, agriculture, the making of butter and cheese, gardening, hygiene of children, etc., and always closing the series with lectures on the education of children and other subjects of Christian morality. At times, entertainments, combining the useful with the agreeable, are given, such as illustrated lectures on travels, etc.

In order to better direct and harmonize the work of the local associations, and promote their extension, a national committee was formed under the presidency of Mme. Rotsart de Herlaing. This national committee, which had to come into existence sooner or later, is in touch with the local circles and is charged, generally speaking, with the duty of attending to the creation and development of additional "farm women circles," and, of favoring and assisting any and all measures that may in any manner contribute to any improvement in the professional teaching of the farm women; to also promote any measure that may have a tendency to check desertions from the farm and preserve to the nation, its robust population, its vitality, its strength and its wealth.

A monthly newspaper, the official organ of the national committee, helps to bind closer the ties uniting the members of these circles and constitutes a powerful auxiliary in the diffusion of professional knowledge among them.

#### Women's Work

The farm woman has vast responsibilities. In Belgium, she has almost the exclusive management of the dairy and poultry yard. The annual production of milk alone, in that country, exceeds the sum of \$72,000,000, and equals the gross railway receipts. The

production of the poultry yards exceeds the budget of the war department. The production of the kitchen gardens, which are also almost exclusively under the farm woman's supervision, represent quite a considerable sum.

It is claimed and there would seem to be no sound argument to the contrary, that the social and rural mission of the farm women surpasses in importance that of the woman employed in other industries of commerce.

If, through the beneficial influence of the farm women's associations, and through the attainment of greater professional knowledge, the farm woman may become better qualified to meet her charges and obligations, and if, through this increased knowledge, her daily work may be made light and her life become a happier and a more agreeable one, then will all mankind be benefited with her and the higher aims of these associations be realized.

#### Invitation from Belgium

In conclusion, I am authorized to say to you all in behalf of the national committee of the Cercles of Farm Women of Belgium, that an International Congress of Farm Women will very probably be held in the city of Ghent, Belgium, in 1913; and on that occasion there will be a permanent Universal Agricultural Exposition in the form of a "model village," to which the 10,000 farm women affiliated, and the national committee, invite you and the farm women of the entire world.

#### TELEGRAM FROM THE PRESIDENT

Mrs. Eleanor L. Burns, secretary of the board of organization, read the following telegram:

Los Angeles, Calif., Oct. 17, 1911  
Mrs. Eleanor L. Burns, Colorado Springs, Colorado.

I am advised that it is the purpose of your congress to advocate the establishment of a better national life by crystallizing the sentiment for improved rural community life, and that you will discuss the proper equipment for the farm home, the laws of phys-

cal life in relation to the family, the improvement of the country school, the importance of home hygiene, emergency nursing, and similar problems that are vital in the life of the farm woman. I congratulate you upon this enterprising project and hope that it will be made thoroughly effective and practical.

WILLIAM HOWARD TAFT,  
President of the United States

#### INVITATION TO BELGIUM

The following cablegram was also read to the Congress:

Chateau de Grand Metz, Belgium, October 17, 1911:—Ten thousand Belgium farm women invite the American Congress to Ghent in 1913.

Baronne Rotsart de Hertaing

#### CONSERVATION OF ENERGY

By Mrs. Mary Pierce Van Zile, Kansas State Agricultural College, Manhattan, Kansas

In this day we hear much about conservation. It is the subject of conversation in office, shop and factory—conservation of forests, of soil and of mines. Very recently a congress of leading men of the nation spent several days in discussing this great question of conservation of our nation's resources. Every phase of conservation was presented by men who had made a careful study of all factors concerned. I was pleased to note that one day's program was given over to the discussion of conservation as related to home life, or to woman's resources. The time is already at hand when men and women have come to realize that conservation of our resources must be understood to apply to the home as well as to the soil, to the mines, or to the forest. Too long the wife had been lost sight of in the mad rush after dollars. We have long been accustomed to think of the agricultural industry as the greatest and most fundamental industry in the economic life of the Ameri-

can nation; but we have failed to recognize the fact that the farmer's wife is one of the essentials of farm life. Therefore, in presenting my paper on conservation of woman's interests, I do it with no feeling of apology, but rather with the assurance that you are in sympathy with the greatest of all phases of conservation.

#### Greatest of All Industries

Housekeeping is the greatest of all industries, giving employment to more than 18,000,000. I believe that, for the great majority of women, the industry in which they should engage is that of the home. There is only one person in the world who can make a good home—a good woman who becomes the wife and mother. She may be capable of becoming a good lawyer, physician, minister, stenographer, teacher, or business manager; but men can do these things very satisfactorily and successfully. This one thing, to be a good homemaker, she alone can do, and to this one thing all her instincts lead. There are exceptions, of course—women who, from force of circumstances, are compelled to forego the pleasure arising from the gratification of woman's inherent tendencies; but, exactly as the first duty of the normal man is the duty of maintenance of the family life, so the first duty of the normal woman is to be the caretaker of the family interests; and as no training is as important as that which will teach him to make his livelihood, so no training is as important for the average woman as the training which will make her a good housewife and mother. But this does not mean that she should be a household drudge. It means that there is nothing too small for earnest study that her work shall be made lighter, less burdensome, and every wasted moment in her life be saved for better things.

There is plenty that is hard and disagreeable in the necessary work of actual life and, under the best circumstances, the wife will have her full share of work and anxiety; but I believe it to be the duty of every hus-

band to, insofar as is possible, share and lighten the burdens of his wife. At the same time I would urge the duty of every wife to bear and rear her children cheerfully and to do her full housewife's work. I believe that happiness comes only from the performance of duty, not from the avoidance of it. The great mass of human happiness will always arise out of doing well the common things of life, and the happiness of the individual will be in that creative genius which does today the same things it did yesterday, but does them better.

Without, therefore, minimizing the importance of the duty of the wife and mother in the administration of home life, I would direct the attention of you, my friends, to certain facts relating to the twentieth century home life, and would ask in all earnestness and seriousness the question, how can we, under modern American conditions, attain to real simplicity in living and yet keep the comfort, convenience and artistic charm of our homes?

#### Deserting Homes in a Body

Every student of economic sociology knows that there is a deep and ominous unrest in all the homes of the civilized peoples of today. Everywhere, during the last 30 or 40 years, the marriage rate and the birth rate have steadily declined, while the divorce rate has risen; everywhere the home is being deserted by its women kind, who go to serve in shop, factory, and mill; everywhere the servant problem is becoming alarming; home life is giving way to restaurant life, home foods are being replaced by factory foods, home products by factory products.

If you consider this an alarmist's view, consult the statistics of the national census. Women are deserting the home in a body. In 1870 there were in the United States 1,836,288 women at work outside the home; in 1900 the number was increased to 5,319,397—a threefold increase in 30 years. These women have entered all classes of occupation except domestic service. Consider this fact with the

equally important one, namely, the encroachment of the factory upon the economic function of the home. A little over a century ago, practically all industry was carried on in the home, and each home was sufficient, economically, unto itself. But, with the introduction of the factory system, one process after another was transferred from the home until today there are few true home industries left.

The home is also losing its powers as a social center. One need only investigate to note the increasing numbers of boarders, lodgers, and hotel dwellers, as compared to the increased population. In 1870 there were 23,935 boarding housekeepers in the United States; in 1900 there were 131,116, an increase of 500 per cent. As for hotel and restaurant life, it has been estimated that the capital invested in these enterprises has more than quadrupled in the last 30 years. These facts prove that there is an unrest in the American home, and for this unrest there must be a cause.

#### Labor-Saving Appliances

Students of the subject are beginning to see that the real cause of all this unrest is in the maladjustment of the mediaeval home to its modern environment. We are living in a wonderful age. Modern science, modern industry and modern business methods have created a civilization which offers rare and wonderful opportunities. Yet the home has not kept pace with these possibilities—it has not appropriated for its use those things which the world has found useful in diminishing waste. The average man will, in his office or factory, make use of all the wonderful appliances of the twentieth century to aid him in his work during the day, and go home at night to a home which, from all appearances, might be an eighteenth century home. His wife will be at work over a hot stove in a dark, gloomy room, poorly planned for work, separated from dining room by steps, with water no nearer than the spring or well, and working with primeval tools, in a crude and inefficient manner.

It cannot be argued that modernization of the home is impracticable, for the patent office contains many thousands of inventions, which if used, would wonderfully simplify and beautify home life. Why are these inventions not more generally used? I believe the answer is that there has until recently been a plentiful supply of cheap labor—mothers, wives, sisters, orphan girls or widows, who have uncomplainingly done the work. But something surprising has happened. New avenues of employment have opened to women and they are deserting the home for the shop, the factory, and the office. As a result there is an increased demand for kitchen appliances. Many of these appliances have been made by men whose first thought was to make a salable article, and very many of them are useless; but there are any number of them that are excellent. Every housewife should recognize the fact that, by introducing into her home some contrivance or convenience which saves time or laborious work, she is conserving strength and making possible the out-door life and recreation which is the direct preventive of doctor's bills and expensive rest cures.

In choosing these appliances, a careful consideration of the time and labor required to adjust them and clean them after use should be made. All such appliances should simplify and not complicate the home machinery. The purchase of any contrivance should be the result of a real need and not because of some attractive advertisement or demonstration. It is very easy to conceive of the possibility that what might be a labor saving device in one home might in another home be a labor making device.

#### The Real Ruler of the Home

The modernized home with its comfortable and convenient arrangement of rooms, and its good equipment, is not complete unless it is presided over by a happy wife and mother who can bring to her family a body free from fatigue and a mind and heart keenly alive and responsive to the family

needs. A tired, overworked woman cannot be expected to enter into the joys of the family life with enthusiasm; neither can she be blamed if her overwrought nerves are the cause of a dejected mental state. To avoid this condition the wise woman will take a few minutes for rest several times during her busiest day. Indeed, it is on such days that she needs the relaxation. To let go nerve, brain, and muscle strain for even a very few minutes is a positive gain to the whole system. A wise woman remarked, "I've so much to do this afternoon, I don't know what to do first, but I think I will first take my nap and get that off my mind." She has learned that the first thing to be done was to get rested, and then the mountain of work and worry would disappear.

To the woman who is ashamed to be caught sleeping during the day or spending an idle moment in an easy chair, let me say that complete relaxation and rest for a few minutes several times each day will enable her to accomplish more work with less fatigue than is otherwise possible and, instead of being a loss of time, it is a positive gain. Many a busy, energetic woman may question the statement and claim that it is all theoretical nonsense; yet, nevertheless, it is body and brain saving common sense, and the woman who will take time for rest, reading and recreation, is a better wife and mother for doing it.

#### Save the Wasted Energy

Duty to self and family should lead every woman to take measures to save health and strength while there is a fund to draw upon. When our housekeepers come to recognize this they will examine their methods of housekeeping to see wherein they can be improved, and I am sure they will be surprised at the multitude of things that they do about the house that can be done with less time and labor.

Try any work and make a record of all the motions made in doing it. Examine the record and see what can be left out. Try another way and make

a new record. Compare records and eliminate all useless motions. Everything done in the house may in this way be the subject of the most interesting experiments. The result will be the exchange of the dust pan and dust brush for the newer and better covered pan with a handle, the scrubbing brush for the corrugated rubber mop with a handle long enough to do away with the necessity of stooping. Stooping is too costly for any housekeeper. Estimate the energy it requires to raise and lower the body every time we clean a floor by the old method. To stoop means to lower the upper half of the body, weighing perhaps 100 pounds, and then to lift the 100 pounds. This is a waste of human life and energy. The modern bricklayer is not permitted to do this. A new method has been provided by which he need never stoop. Should the wife think less of herself? This is but a single instance of the saving of useless motions by more efficient methods and better appliances.

Time does not permit of a discussion of the different ways of elimination of waste in the home. Suffice to say that the time is at hand when it is the rightful heritage of every housekeeper to enjoy a home where everything is arranged for her personal comfort and efficiency. Her conveniently arranged rooms will be filled with appliances that will add to the ease and speed with which she can do her work. The result will be a new housekeeping—less laborious and more efficient. Then housework will cease to be considered drudgery and become the interesting science of home making in which all members of the family are co-workers. Woman will then take her place as the organizer and superintendent of the economic consumption of the wealth of our nation. She will have a new conception of the duties and privileges of the home maker; she will look beyond the mere doing of things to the end to be attained, the health and happiness of those in her care. By means of the physical attributes of warmth and shelter,

light, air, water and food, she will mold the bodies of the race. Through logical construction and beautiful decoration of the house and the proper performances of the duties within it, she will mold the mind of the race; and through development of the higher nature of the family, she will mold the souls of the race.

The Chairman introduced as the fourth speaker of the session Mrs. John A. Widsote.

### HOME LABOR-SAVING DEVICES

By Mrs. John A. Widsote, Logan, Utah

It is with an unshaken belief in the great advantages of farm life and also with some little experience of it that this paper is written.

Farm labor, if performed rightly, gives health to the body, freedom and joy to the mind. Boys and girls raised on the farm, with proper home environment, are very apt to be strongest morally of any of our citizens. Farm life gives the greatest independence to the individual, for the farmer acknowledges no man master, but God and the elements. These are truisms that all accept, though they fail to convince many people of the superiority of farm life.

True, there are many disadvantages to farm life. The average farm is more or less isolated and humanity, being naturally gregarious, cannot endure isolation long, whether on or off the farm. The apparent loneliness of the farm, however, is partly due to a lack of training on the part of those who live there for the appreciation of the beauties of their surroundings and labors. They have not had their minds or eyes opened to the wonders of nature; to the beauties that she has placed before their minds, or the mastery possessed by the farmer over the forces of nature.

#### Cultural Elements Desirable

There is also necessarily on the farm a lack of cultural elements, such as a

good occasional theatre, an inspiring lecture, good music, or an art gallery to visit in a spare hour or two. These things are ordinarily absent from the small village as well as from the farm, and the individual in each case must be trained to use the resources about him to supply the deficiency.

There is something more than all this, however, that makes farm life distasteful to many young men and more young women. They object, in substance, to farm life because "there is too much work on the farm." It is the cry wherever one goes and all the many advantages are cancelled by its insistence. Is it true? Is there too much actual work and drudgery on the farm?

As a rule it must be admitted that women on the farm work very hard, and that more women are overworked than men. It may not be true that in the same space of time women work harder than men, but "man works from sun to sun, while woman's work is never done." Work of itself is one of the prime necessities of healthy and happy life and it is the greatest blessing instead of the greatest curse that God put on his children. But man, and woman, also, must have rest and recreation.

#### Drudgery of a Woman's Life

Man's work on the farm is intense while it lasts, and it may cover long hours, but when it is done, it is done, and the man rests while the earth rests. A woman works incessantly while the man does but she has no period of rest, for busy fingers must use even the evening hours in mending, darning or keeping the clothing in good condition. During the night, also, when the tired body should reinvigorate itself for the morning's toil by sound unbroken slumber, the woman is more often than not disturbed by a restless, ill or nursing child. Her daily tasks include cooking, serving, scrubbing, cleaning, sewing, laundering, waiting on the sick; and many women add to this list the feeding of pigs and chickens and making the kitchen garden. The man usually has his Sunday free, when his mind rests

as well as his body. He dons his Sunday best in the morning and has most of the day to visit friends, talk about the weather—to recuperate his strength. But he does not recuperate very much unless there is a fine hot Sunday dinner waiting for him after church. Meanwhile Sunday is often the hardest day for the woman, and most holidays add heavier burdens instead of lighter ones.

Besides the performance of her usual tasks, most women have the keen joy as well as the great strain of bearing and rearing a family of children. This alone could occupy most of a woman's energy if she did it well; but it must be done in addition to many pressing tasks and as a result many children "just grow." Most men would think it very bad policy to work their horses or use their cows to the last day before giving birth to young, but how many men ever think it necessary that a wife have a month's rest before that blessed period comes in her life?

And so I make the statement advisedly that a woman's work is never done. She has very few real holidays throughout her life. That makes one of two things necessary—either the average woman must have ways and means of performing her work with as little expenditure of energy as possible, or else she is going to wear out as a tired machine and the man will have to get a new wife as he gets a new mowing machine.

#### Use the Brain to Save Labor

In the matter of securing hired help, also, man's work on the farm is more easily done than woman's. While at times it may be difficult for men to get all the help they need, still more men than women are available. It is almost an impossibility to get help in the farm home, even if it can be afforded. Girls from the more thickly settled districts do not care to go to the farm. It is too lonely. Girls that are born and raised on the farm usually have all they can do to help mother, or they prefer to try the city. Of necessity mother has to do all the work until the girls are big enough

to help. From every point of view it is clear that woman should be enabled to do her work in the easiest way possible. It makes for the health and happiness of the entire family.

It may be granted that women do not use in the best way all their advantages; that they lack special training for their labor, also that they fail to use the system and intelligence which makes joyous work. They may also lack that certain progressiveness which enables men constantly to use their brains in thinking out devices for saving energy. If men would do the housekeeping for a few years we would have as fine dishwashing machines and cookers as we have hay derricks and combined harvesters. It ought to be quite as easy to invent a dishwashing machine as one which cuts, threshes and sacks the grain with one turn of the wheel. Woman's very conservatism and content is often her worst enemy.

In one respect, that of money, woman cannot help herself; because in most cases the man holds the purse strings. Most farm women make their living out of their chickens and dairy; and ready cash is a thing they seldom see. Any help or labor saving device that costs money is, for that reason, forbidden. Now this is the case, not because men, as a class, are stingy, nor because they do not want to help their wives, but because they do not think about it and the women do not make them think.

#### Labor Saving Devices in the Home

This is the day of labor-saving devices in the home as well as on the farm. Scarcely any man would deny their place on the farm, because he sees in their use a saving to him in dollars and cents, and that always make a strong appeal. If a \$60 mowing machine will enable him to cut as much grass in one hour as his father cut in one day with a sythe, the argument is complete. But if a \$60 vacuum cleaner would enable his wife to do as much cleaning in one hour as her mother did in one day he would doubtless spend a few months thinking about the expenditure of the

\$60! Again, this is not necessarily because the man is hard-hearted, unfeeling, or stingy; but because if he thought of it at all he would feel that man is the bread winner, that through his labors the money and the wherewithal of life come into the home and any expenditure is therefore justified.

But is money the end of existence? What good is a large bank account to any man if he has the consciousness of a worn-out, ill-tempered wife and a cheerless home to greet him when his day's work is done? No woman whose energy is taxed to the breaking point by the ceaseless daily and often nightly grind of toil can be cheerful and companionable any length of time. Is there a money equivalent of the cheerful smile and life companionship of the woman that was once the best on earth? Can money pay for the lack of these things? Sometimes money does pay. It often pays coffin bills and undertaker's fees, and many a man has found that one hospital bill or doctor's fee would have bought many a vacuum cleaner. Is it not better to practice the ounce of prevention method? The farmer who understands that there are things in life worth infinitely more than dollars and cents will use every spark of intelligence, and some cash as well, in making the most perfect possible home.

It is taken for granted that money must be spent for labor saving devices on the farm. Bread and butter depend on it. It should be equally conceded that a certain amount must be spent in the same way for the farm home—peace and rested companionship may depend on it!

#### Labor-Saving Devices

Below is a list of machinery, part of which is used on the farm, with the approximate cost of each article. This list does not include any of the farm necessities, such as horses, harnesses, wagons, and the ordinary farm implements used for the erection of shops, granaries, barns, sheds. These are put in the list of necessities. The list of labor saving devices includes simply those implements that man has invented to make one hour's work

the work of 10—strictly labor-saving devices.

Steam plow, header and thresher	..\$5300
Steam plow	..... 3500
Combined harvester	..... 2500
Threshing machine	..... 1200
Header	..... 275
Self-binder	..... 175
Drill, 14-hole	..... 145
Hay derrick	..... 100
Reaper	..... 100
Hay loader	..... 100
Beet drill	..... 100
Gang plow	..... 85
Hay tedder	..... 75
Mowing machine	..... 60
Sulky plow	..... 55
Push rake	..... 50
Disc harrow	..... 50
Beet cultivator	..... 50
Hay fork	..... 40
Rake	..... 35
Beet puller	..... 25
Drag harrow	..... 20
Hand plow	..... 18
Alfalfa buncher	..... 17
Total	.....\$14,075

There are many other kinds of machines in use on different farms, but the list is complete enough to make the point that there are many such machines and that they quickly run into money. This estimate was given me by the leading implement dealer of our town and ratified by some of our best farmers.

#### Needs of the Farmers Wife

The term, labor-saving devices in the farm home, does not apply to the necessities, such as stoves, cupboards, pump, dishes, tubs, and the ordinary furniture of the home; but to those which have been invented to accomplish the daily tasks in less time than ordinarily consumed. This list includes:

Heating system	.....\$400
Complete water system, including bath tub, sink, and a pressure tank.	125
Sewing machine, say	..... 50
Refrigerator	..... 50
Cement walks, average sized cottage	25
Dishwasher	..... 25
Fireless cooker	..... 15
Washing machine	..... 10
Coal oil stove	..... 8
Steam cooker	..... 8
Vacuum cleaner, hand	..... 8
Cold mangle	..... 6
Alcohol iron	..... 5
Bread mixer	..... 3
Cake mixer	..... 1
Total	.....\$741

This list does not include any of the electric fixtures or machinery run by electric power. Many villages are

now connected with such power; but the majority are not, so they are not mentioned. This list shows, also, that there are many labor-saving devices for the home, and that they are very much lower in cost than the implements used by the man on the farm.

To determine the cost of labor-saving devices on the farm and in the home, two Utah farms were examined for this purpose. Farm No. 1 is a 50-acre hay and grain farm; No. 2 is an 1800-acre hay and grain farm. Be-

These machines, when once bought, are supposed to last a life time. The difference is evident. From about one-fourth to one-tenth as much money is invested in the woman's side of farm work, as in the man's side. The actual cost of helps for woman's work is low, and considering the importance of the home in the welfare of the farm and the farmer, it is seriously to be questioned if justice has been

**COMPARISON OF COSTS OF LABOR-SAVING DEVICES ON A SMALL AND ON A LARGE FARM**

FARM NO 1		FARM NO 2	
Implements used on 50-acre Farm		Implements used on 1800-acre Farm	
Self-binder .....	\$175	Harvester .....	\$2500
Drill .....	100	Three drills .....	435
Hay derrick .....	100	Gang plows .....	340
Mowing machine .....	60	Four disc harrows .....	200
Sulky plow .....	55	Two mowing machines .....	120
Disc harrow .....	50	Two sulky plows .....	110
Hay fork .....	40	Hay derrick .....	100
Rake .....	30	Reaper .....	100
Drag harrow .....	20	Two rakes .....	60
Hand plow .....	18	Three drag harrows .....	60
		Hay fork .....	40
		Hand plow .....	18
<b>Total .....</b>	<b>..\$648</b>	<b>Total .....</b>	<b>..\$4,083</b>
Besides a possible \$500 invested in some co-operative threshing machine.			

low is given the list of the labor saving machines found on each of these farms, with the cost of each machine specified.

This machinery is seldom cared for in a thorough manner, and has to be replaced every five to ten years.

The labor-saving devices for the woman's work on these two farms, as ordinarily found, are tabulated below:

**COST TO SAVE WOMAN'S LABOR  
HOME NO. 1.**

Sewing machine .....	\$50
Washing machine .....	10
Bread mixer .....	3
<b>Total .....</b>	<b>..\$63</b>

**HOME NO. 2.**

Bread and cake mixers .....	\$65
Sewing machine .....	50
Refrigerator .....	30
Washing machine .....	10
Oil stove .....	12
<b>Total .....</b>	<b>..\$157</b>

done the woman in the few labor-saving devices provided for her.

Every farm home should be supplied with as many as possible of the following labor-saving devices:

Water system .....	\$200
Heating system .....	200
Sewing machine .....	50
Refrigerator .....	50
Cement walks .....	30
Mangle .....	25
Vacuum cleaner .....	25
Dish washer .....	25
Fireless cooker .....	15
Coal oil stove .....	12
Washing machine .....	10
Dinner wagon .....	10
Bread mixers .....	5
Alcohol iron .....	5
<b>Total .....</b>	<b>..\$670</b>

Any other device that comes on the market from time to time, the purpose of which is the saving of price-less life energy should be added.

It is possible to have any labor-saving device in any farm home if the man of the house is sufficiently interested to go to the expense, for such houses are found occasionally. One such home is in Fielding, Utah. It belongs to Mr. W. S. Hansen, a type of the best farmer who boasts that all he has accumulated has come from the soil. The house contains all the labor-saving, comfort-giving devices possible in any city home. It is a 12-room, four-story, modern, brick mansion, and the family is large; so that the equipment is larger and consequently more expensive than would be necessary for the average home.

The house contains these labor-saving devices: A hot water heating system; hot and cold water for kitchen, laundry, two lavatories, and two bathrooms; an electric light system for the four stories; an acetylene gas lighting system for the entire house; a perfectly equipped laundry (including a large cylindrical washer, automatic wringer, two cold roll mangles, steam drying apparatus, automatic sprinkling nozzle and stationary tubs); a stationary vacuum cleaner in basement with pipe connections on each of the four floors; besides a dumb waiter, clothes chute to basement, ash tanks in basement for each grate; a complete cemented basement and cement walks around the entire house. The whole equipment is run by a three horse power gasoline engine, which cost \$100. The engine also pumps water into a tank in the barn which is used for watering the animals. Before the engine was used, it cost \$3 a day to water the animals; now it can be done for 10 cents a day. It costs 11 cents an hour to light the house with electricity; only 15 cents a day with acetylene gas.

The vacuum cleaner cost \$150, and costs 3 cents an hour to run. One whole floor, consisting of five large rooms can be cleaned in two hours, and cleaned as no human power could clean it. The cleaner has been used two years with perfect satisfaction. The laundry has been used six years and in all of that time the only re-

pairs have been the tightening of one belt. It takes a woman four hours to wash for the entire family of 12!

This home has two sources of water supply—the house and the yard tank; two heating systems—a stove and grates, or the hot water system; and two lighting systems—electricity or gas, the one to be used if the other is out of commission. The owner estimates that all of the machinery and appliances, including laundry fixtures, vacuum cleaner and plumbing fixtures (bath tubs, sinks, basins and piping) lighting systems and everything named above cost him in round numbers \$2,000. This seems a vast sum of money to spend for home machinery; but when one considers that there is possibly \$5,000 invested in farm machinery on this farm the proportion does not seem so large, especially when one considers that the latter must be replaced every 10 years.

Too much cannot be said in praise of a man who provides such a home for his family. Of course it is granted that few farmers could afford such conveniences. All we ask is that while they are adding to the farm large barns and sheds and every machine that comes on the market, they take an equal interest in spending money for the bettering of conditions in the home. The equivalent of the expenditure will come back to them many times over—though the interest may not be paid in dollars and cents.

#### Necessary Equipment

Every home should, if possible, be equipped with a water system. The practice of carrying all water into the house and then carrying it out again is the worst kind of extravagance.

Nothing need be said about the sewing and washing machines. It is to be wished only that electricity could be supplied in the majority of homes to run these machines without human power.

No really progressive woman will refrain from trying the bread and cake mixers, and if she persists in using

them one month she would not want to keep house without them.

Much could well be said in favor of using the fireless cooker, particularly on a hot day when the farm hands must be provided with warm meals and when cooking over a hot stove is almost an unendurable process. Those who have used the cooker most declare that, after its use, food cooked on a stove is dry and tasteless. It is most highly recommended to housewives. There are many different kinds on the market, any one of which has advantages and disadvantages. The one in which the plates are made of iron, which may be placed inside the firebox to heat, will be found most useful. Success depends on getting the plates very hot. In the early morning when it is cool a fire could be made, the plates heated, and food for the hot meal at night put in the fireless cooker. The food will be found ready when wanted. The fireless is no longer an experiment; it is used in many homes with great success today. (See Bulletin No. 217, of the University of Wisconsin, "The Fireless Cooker," by Ellen A. Huntington.) Coal-oil stoves are also used with success by many housewives in the heat of the summer. The steam cooker is very convenient in bottling fruit, steaming chickens and puddings and in countless ways familiar to every housewife.

The alcohol iron can be used at a cost of a cent and a half an hour by using denatured alcohol at 60 cents a gallon. Care must be exercised in using this iron, but its use saves countless steps and is much preferable to the old journey between the table and the stove. Of course, the electric iron is to be preferred if it can be used.

Every farm home should be supplied with some means of keeping the food cool, other than the one usually resorted to—the cellar, or the cool outhouse, many steps removed from the kitchen. A refrigerator or some kind of artificial cooler should be a part of every kitchen furniture, and should be as necessary as the stove.

In places where ice is not to be procured it is possible to make a cupboard, in some instances where running water can be utilized; or where the cupboard has access to the outside air, the shelves being of wire netting, which permits the constant circulation of the air—this cupboard, of course, being on the north side of the house. The principle used in the African water bottle may be utilized—that of having a cupboard made of some absorbent material and allowing the cover to become saturated constantly. In our western climate evaporation of the water keeps the inside air as cool as could be desired.

#### The Dinner Wagon

In homes where it is necessary to have a separate cooking and dining room it should be considered necessary to have a so-called "dinner wagon." This dinner wagon can be made by anyone who knows how to handle tools at all and is in reality a three-story table on wheels. This should stand near the kitchen stove and on it should be placed everything required for the meal. It can be wheeled into the dining room at the last moment, the things put on the table and the wagon then set aside again until required to move everything from the dining table back to the kitchen. Think of the countless steps saved by the use of such a simple little appliance as this!

Cement walks are among the labor-saving devices. They should almost be listed among the necessities. House labor should not only include getting dirt out of the house but preventing it from getting in. A wise woman should stipulate that cement walks be built as soon as possible after the building of the house. This seems to be strange doctrine to preach to farmers' wives who live in isolated districts many miles from the railroads. But if possible get the cement walks and cellars. Half the cleaning of every home could be saved if cement walks were used. The cost is not prohibitive and, even in districts where railroads have not yet penetrated, cement could be hauled at an addition-

al cost of a few cents per hundred pounds. As a matter of fact, when the cement walk is considered a necessity, the cement will be found as easily as are building materials.

You will notice that in the list given there is a mangle mentioned. I suppose there is hardly one home in a thousand and in this great country provided with a mangle; and yet, in the older countries of Europe, the poorest possible house-worker would feel she was imposed upon if she had to iron by hand her so-called "flat work." Three-fourths of the ordinary washing can be passed through a mangle and can be done in one-tenth of the time. Considering the cost of the mangle, from \$6 to \$25, no home in which weekly ironing is done should be considered equipped without one.

#### The Vacuum Cleaner

Many different kinds of vacuum cleaners are on the market; the hand cleaners cost from \$8 to \$25, the electric from \$25 to \$125. Too much cannot be said in favor of the use of the vacuum cleaner, even where the hand machine is used, as a great deal of time and energy is saved by its use. Aside from the saving of energy is the saving of the furniture and utensils. While you are wearing out your brooms you may be sure the carpets and furniture are being worn to the same extent. Besides, no room is cleaned unless the dirt is gathered and burned. The ordinary process of sweeping and dusting does not destroy much dirt, it merely changes its place.

The successful dish-washer is possibly a machine for the future. A few different kinds are on the market, but, for the small family, they seem not yet successful. Some people contend that we should use paper dishes and burn them.

Few farm homes, of more than four rooms, know the luxury of being warm in winter. It is much cheaper to heat an eight-room house with a furnace than with stoves, to say nothing of the saving in labor and dirt. This is known by actual experience. If one cannot afford to keep a large

house warm during the long winter months one ought not to afford to build it. It is not healthful to have one or two rooms warm and all the others icy cold. A furnace to heat a six or ten-room house can be installed for \$150 to \$600, and the actual running expense is less than heating with a stove.

#### Cement Walks Requisite

In order to have any and all of these appliances in the home it is not necessary to be extravagant. If, as some political economists tell us, a woman is entitled to spend one-third of the yearly income, she can plan to get first those things which mean most to her. Cement walks should be more important than the showy, costly front porch, which is seldom used except on a warm Sunday afternoon. A vacuum cleaner is much more necessary than the velvet "parlor set" or a showy mahogany mantel. A well-equipped handy kitchen ought to be much more desirable to every housewife than a well furnished, showy parlor. Both are desirable, but if something must be sacrificed, let it be the things for show.

Here it may be well to say that every woman should be the original architect of her own home; for she is the one to work in it and she ought to understand it better than anyone, especially a man. Every girl should begin early to sketch her ideal home and change it as her understanding enlarges. Then, when the time comes to build, she will know what she wants. No woman would plan to have one or more steps between kitchen and dining room, for every time she steps up she actually lifts the weight of her own body. She should understand that a cement cellar is as necessary as the roof and much more desirable than a front porch. If any porch at all is to be provided let it be a sleeping or living porch, but not one for show merely! The house should be planned so that as few steps as possible need be taken in the accomplishment of all daily tasks, and this needs careful thought and study, If the house is to be more than two

stories high, a clothes chute for soiled clothes should be planned for and built in. If food must be sent to the cellar to be kept cool, a dumb waiter should be provided. Built-in furniture is much more preferable than store furniture because of the ease with which it may be kept clean. It is no more expensive.

#### **Advice to Farmers' Wives**

A word ought to be said to farmers' wives, particularly those who live in villages, about the advisability of co-operative ownership of expensive labor saving devices. If each man who could not afford to own a threshing machine raised only as much grain as he could thresh by hand, how fast could he get ahead? It is just as feasible for half a dozen women to own a large vacuum cleaner and take turns in the use of it. In the same way a laundry could be equipped and used by different families on different days. Also a brick oven could be built and some one employed to bake bread for all the families interested. It could be done much cheaper and with what a saving of labor! If women could only be permitted to handle a little of the income of the farm and wake up to their opportunities they could make life much happier for themselves and their loved ones.

#### **Legislation Requisite**

In conclusion I desire to call the attention of this distinguished body of women, to a bill presented at the last session of congress by Senator Reed Smoot. This bill is "To Provide for an Increased Annual Appropriation for Agricultural Experiment Stations, to be used in Researches in Home Economics and Regulating the Expenditure Thereof." This bill was read twice and referred to the committee on agriculture and forestry and there it slumbers.

If all the progressive women of the nation would rouse themselves, work through their senators and congressmen and wake that bill up it could become a reality. It is no more than right that our government should provide means to experiment for the betterment of home conditions and a bet-

ter race of men as well as for better hogs and chickens and fine sanitary barns. The Smoot bill provides, among other things, that \$10,000 shall be annually appropriated "to pay the necessary expenses of conducting original or confirmatory researches or experiments bearing directly on home economics, including both domestic science and domestic art, and printing and disseminating the results of said experiments, having due regard to the varying conditions and needs of the respective states and territories." When this bill becomes a law we will have our perfect dishwasher.

Miss Ellen A. Huntington of the Utah Agricultural College, who was to have addressed the Congress on "The Application of Science to the Housekeeper's Daily Problems," was not present, and her paper was read by Mrs. Widtsoe.

### **THE APPLICATION OF SCIENCE TO THE HOUSEKEEPER'S DAILY PROBLEMS**

By Miss Ellen A. Huntington, Utah Agricultural College, Logan, Utah

Home economics workers of the "advance guard" have always considered the housekeeper a part and parcel of the problem in establishing home economics on a sound educational basis, but there has been little time or energy to spare for a prolonged consideration of her daily problems. Now that the educational side of home economics is finally established and well developed, it would seem as if the time were ripe for rendering assistance to the housekeeper. Therefore, the application of science to the housekeeper's daily problems will probably be attained, first, through the education of future housekeepers in science, and secondly, through investigational work in connection with the home economics departments in our colleges.

Educators have labored and finally converted others to the belief that there is as much mental discipline to be obtained from the practical application of science to problems in life

as there is obtained from Latin or pure physics. There never has been any question in the West but that the education of woman for her position in the home or for an occupation stood in as dignified a position as the education of the boy for his position as engineer, farmer, teacher, or physician. As a result, it is observed that, although western education has had a comparatively short period of existence, the education of the future housekeeper in science is well provided for.

#### Application of Science

The chemist teaches weighing in his quantitative analysis, by determining the moisture content in food and accurate methods of analysis through the analysis of food and, according to the newer methods of teaching organic chemistry, he ignores many of the compounds and derivatives to the advantage of the hydro-carbons and carbohydrates; the botanist includes a study of plants used as food, and often digresses enough to allow a consideration of the textile fibres; the zoologist is eager and ready to include eugenics; the economist has always been in this practical procession, and it would not seem strange to see the mathematician join it soon. Thus, the application of science to daily living is an established fact for the college girls who will be a portion of the housekeepers of the future.

But the assistance which can be rendered housekeepers through investigational work seems somewhat more difficult to accomplish at present, because it necessitates a worker and ample means to do the work. The worker must have had sufficient and thorough grounding in science in order to undertake the problem, and there are few women in the field now who are thus well trained and who are not in demand for teaching. Those who are teaching and attempting to carry on experimental work will appreciate the truth of the saying that "half a man in experimental work means a quarter of a man in the results obtained, and a quarter of a man means no man at all." I believe it largely

due to the fact that women have had only "quarter time," which has brought down upon them the criticism that women are inclined to dabble in experimental work. It reminds one of the occasion when one woman went with five men to hold a farmers' institute. The one woman did all the work in the women's sessions, and at the close of the institute, one of the men, tired and weary, said, "Yes, it is hard to carry a meeting when there are only two speakers. Three make it much easier."

Therefore, the teacher of home economics finds it difficult to "squeeze in" experimental work with her teaching, and the time of the housekeeper is so broken that she, although she may be well trained in science, would find herself only quarter of a man, so far as results were concerned. Further, could not the information be made available for all, and should there not be a clearing house for such practical information?

#### Save Labor With Fireless Cooker

For example, in our western country districts where there is no gas, the fireless cooker has proved a boon to housekeepers. The principles upon which its efficiency depends are that heat, once acquired, may be retained through insulation, and that many foods may be cooked at a temperature below the boiling point. The Norwegians, as early as 1867, used the cook box and, later, the Germans used their feather beds. In this country many insulating materials have been used, but by measuring accurately the temperature of the same quantity of starch solution packed in hay, excelsior, sawdust, newspaper, asbestos, hair, and mineral wool, it was found that mineral wool conserved the most heat. The minimum mass for satisfactory cooking was also determined and finally the question of economy in its use was considered and experimented upon. At the time this work was done, it proved economical of fuel, time, and energy only when used for those processes which require long slow cooking. Now, with the many improvements, such as a

cover to draw down quickly over the food while it is still boiling hot, or the introduction of hot iron plates into the cooker, it has been made even more economical. This information should be of use to the housekeeper.

Again, in this age of scientific management, it seems to me that the economic side of a problem is of as much importance as the scientific. Louis F. Brandies, in his work with the railroads, and Mr. and Mrs. Gilbraith, in their work with the bricklayers, have shown us that in these days of "intensive business" it is necessary to measure small economics accurately and scientifically in order to produce efficiency. It will avail little to the housekeeper to have a problem solved scientifically if its cost in time or in money is prohibitive. Let me cite an example: The time-honored coal range, which has been the first essential in so many households, is probably doomed to banishment as soon as an equally efficient and economical method can be devised to accomplish the same work with less expenditure of energy. The fireless cooker is but a step in that direction and it is not inconceivable that central kitchens or bakeries may do the heavy part of the cooking more cheaply than it can be done in the home. This would mean that those methods of cooking which are now considered accessory might be so well developed that they would become sufficient. In the hope of proving such an accessory method practical some experimental work has been done with the electrical range.

#### Cooking by Electricity

In the intermountain west, where mountain streams are numerous and their power is easily converted into electricity, it would seem practical to cook by electricity. The housekeeper needs information not only in regard to the first cost of the equipment, but also in regard to the cost of running it. At present there seems to be but one range on the market which is at all practicable for household use, and this has all the objectionable features which were attached to the first gas

stoves manufactured, such as the low, back-breaking oven, etc. This electric range with its oven, four discs, broiler and utensils, costs \$110, plus the freight. That there is economy in using the utensils which fit the discs may be seen from the fact that it costs \$.0025 more to boil one quart of water in an ordinary aluminum teakettle than in a teakettle made to fit the disc closely. The cost of running the range is enlightening. In the intermountain west the average cost of electricity for cooking purposes is \$.05 per Kw. hour. Using this as a basis the following figures were obtained:

To boil 1 quart cold water in a cold teakettle required 12 minutes time and cost \$.0075; to bake a layer cake required 45 minutes time (including time required to heat the oven for baking), and cost \$.035; to bake four loaves of bread required 1 hour 18 minutes, and cost \$.07; to cook a dinner for six consisting of cream soup, five pounds roast beef, roast potatoes, asparagus, white sauce, cottage pudding with hot sauce and coffee, required three hours and cost \$.335; to heat the water for washing dishes cost \$.05 more.

In comparing the cost of baking one loaf of bread with coal and gas, we find: Coal, \$.0021; gas \$.0025; electricity, \$.0175. Therefore, cooking with electricity is as yet an expensive method and much slower. On the other hand, it does satisfactory work, it is cleaner than gas or coal, and always ready, so that the optimistic housekeeper will hope that the electrical companies will develop the range to make it more efficient.

Other problems, such as high altitude cookery, which seems to be a question of density of gases, so far as Miss Brown has investigated; or such problems as the question of using soft wheat flour for bread and the difficulties with different yeasts; or, again, the effect of the pasteurization of milk upon the organic compounds, could be worked out for the housekeeper by the home economics worker if she had the time and means for such work.

## Fourth Session, Wednesday Afternoon

The entire afternoon session was given over to a most interesting and instructive lecture and demonstration on "Emergency Nursing and Simple

Home Hygiene," conducted by Miss Florence E. Standish, of Bethel Hospital, Colorado Springs, Colorado.

## Fifth Session, Thursday Morning, Oct. 19

The session was called to order at 9 o'clock, by Mrs. William F. Slocum, president of the board of organization, who introduced the Hon. W. M. Hays, assistant secretary of agriculture, Washington, D. C.

### ORGANIZATION OF SCHOOLS

By the Hon. W. M. Hays, Assistant Secretary of Agriculture, Washington, D. C.

Our system of one-room rural schools has had some wonderful features. It had the vitality and adaptability to spread to practically every section of the open country of the entire United States and to retain its hold as a system, practically to the end of the nineteenth century. It long held the foremost place as an agency for free education. It was our most potent factor in making possible our free institutions. It has served as the broadest basis of what we like to term Americanism. In the one-room district school most of our leaders received their start, or even their whole school education.

The reaping cradle, the stage coach, the sailing vessel—each in its own time held the field. But the self-binder, the railway and the steamship came and superseded them. In like manner the one-room rural school is giving way to the consolidated rural school. The township or somewhat lesser area is changing from its plan of six or eight one-room schools to its centrally located five-room school with public wagons transporting the children from the original districts to the centrally located school.

Beginning about 20 years ago in northeastern Ohio, the consolidation of rural schools in the open country has had a uniformly successful extension until now about 2,000 townships have voluntarily adopted the new plan. This new form of school having been uniformly successful, the experiment is as well tried as was the sewing machine, when 2,000 were in use, or the self-binder when a like number had succeeded on as many farms. People who have investigated the facts no longer see the question as to whether or not our rural schools are to be consolidated. With them the question is, how rapidly are they to be consolidated?

If this consolidation keeps on doubling in number every two or three years, as in the past several years, we shall have our entire open country territory covered in 12 or 15 years. It seems conservative to estimate that in 20 years most of our country schools will be thus reorganized and that we shall have 30,000, and, finally, 40,000 country life schools at once in touch with all farm homes, and large enough to bring the blessings of general and vocational high school courses to all country youth.

### To Advance the Good Work

Let us first consider how to bring along this beneficent change more rapidly. Where the district is under state authority the problem is partly in the hands of the state department of public instruction and partly in the hands of the people, because the officers cannot go forward unless the people agree. Where the authority to re-district the county is in the hands

of county authorities the county superintendent or county school board and the people must agree. Where the consolidation is by law, simply permitted, locally the problem is almost wholly up to the people in each township, or each proposed new consolidated district, of somewhat less area than the six-mile square township. The county unit of organization with some authoritative supervision from the state presents, in this matter of consolidation, as in many school matters, favorable conditions for advancement. In any event, consolidation can only proceed where the people know the facts and want the move made.

#### **The Counties Should Investigate**

This is one of those matters in which more enterprise should be used by counties, and by the lesser civic units, in choosing from among their most enterprising and yet careful citizens delegates to visit and personally investigate existing consolidated schools, that their advice may be taken in the question of local change to the new system. Even in a township which contemplates consolidation, it would be wise to send one or more persons to investigate and report on consolidated rural schools in other parts of the county or in other counties. For the most part the stupendous movement already in motion in consolidation has been carried on by the farmers themselves, who do the voting, with very little in the way of propaganda by federal or state departments of education. There has not been even a general rural school organization to put this matter forward, and state and national educational associations have discussed the matter in an academic way rather than to dynamically use their own influences to bring about consolidation. The movement grows because it is a good thing and because farmers believe it is a benefit to their families and to the civilization of their communities. There have been printed some very useful reports by the United States bureau of education, state departments of education, the United States Department of Agriculture, state departments of agricul-

ture, and by the National Education association and state educational associations. Those desirous of promoting a sentiment for consolidation should seek this printed matter, much of which can be secured free of cost.

Under consolidation there is employed a smaller number of teachers, but the aggregate salary of the faculty of the school is approximately the same as were the combined salaries of the teachers of the one-room schools which were abandoned. There is the additional cost of the erection of a good school building and a cost for hauling the children to school. In compensation for this rather substantial increased cost per township there is a far better school and a better training of the people, which, in the end, makes such a substantial increase in the income of the farmers that the enterprise is very profitable to the neighborhood from an economic standpoint alone. But even more important than this fact, under the new school arrangement, that very neighborhood becomes more intelligent and, especially, more expert in the business of farming and farm home making. There is a more enjoyable vocational life, a vastly more delightful social life and a far more effective civic life.

#### **Plans for Country Unity**

In locating these consolidated rural schools there is a material reason for first making a plan for the entire county, or even for a group of counties, that all of the territory may be covered to the best advantage, not leaving out isolated areas which, later on, cannot be well accommodated with the larger, more efficient schools. By thus mapping out the districts of the county, a county system of consolidated rural schools is projected; and when we realize that these schools can provide at least a two-year high school course, and can provide instruction in vocational subjects during the four years, including the seventh elementary year to the tenth high school year, we get a vision of what a county country life school system may mean. In the dry-land country, and in other sections where population will be

sparse, these central schools will not be large, though covering more than the average of territory; but in the humid regions, and especially in the irrigated sections where the farms are relatively small, the new school will usually have four or more rooms. And where the one-room schools are consolidated with the village and town schools the combined rural and town school population will require large schools.

For typical average conditions let us take a consolidated rural school district five miles square in Iowa, or in an adjoining state. Let us locate in the center of this district a 10-acre school farm and thereon place a building with five school rooms and one large neighborhood audience room. Let us erect a substantial cottage in which the principal can live and bring up his family. On an adjoining 10 acres let us build a union church and parsonage. It may be possible on yet another adjoining five or 10 acres to develop a community co-operative enterprise, consisting of a store, per chance a creamery, and possibly an abattoir, a bakery and a laundry. There will be needed on this tract a cottage for the co-operation manager and for a janitor.

It will be well if not only the principal of the school, but also the pastor and the co-operation manager are graduates of higher schools and colleges of agriculture. Three elementary teachers, each with two grades, can give splendid attention to the 100 pupils in the lower six grades during the ordinary school year of eight or nine months.

#### No Vacation for the Principal

The principal and assistant principal trained to teach home economics, can, during the six winter months, give a splendid four-year course of combined general and vocational studies to the 50 boys and girls in the seventh and eighth elementary grades and in the ninth and tenth high school years. These older pupils will naturally spend the alternate six months in a combined effort to solve the labor problem of the home farms and in the farm homes and

in learning the business of farming and farm home making. The two high school teachers should be employed the year around and, during this alternate six months, can co-operate with the parents in giving to the home work a truly high standard of apprenticeship service. By joining in more or less of the every day work of the boy and girl the teacher of agriculture can set high standards of doing practical things and at the same time become a positive influence in the home and social life of the entire community.

During this alternate six months much can be made of such educational collective work as boys' corn club contests and girls' tomato raising contests, which run through the season. Once a week and once every two weeks the school wagons can take both young and old pupils to the school for a combination of gala day, of reports on contests and other home work, of literary exercises and of vigorous games, as of baseball, football, etc.

On this day also the manual work of the school farm can be done co-operatively by the pupils. Thus the school farm can be made to serve as a laboratory to give practice in doing things well, and as a demonstration farm where some things can be emphasized better than on the home farms. The school farm can become more or less of an experiment station where can be tried species of forest trees, varieties of field crops, fruit trees, vegetables and ornamental plants. The school farm can be divided into two parts, one devoted to trees, shrubs, playgrounds and buildings, and the other part can be devoted to the testing of varieties of field crops, the trial of crop rotation schemes and of methods of fertilizing the soil. Practice work can also here be given with some things in the field crops as well as with the horticultural crops. And the school farm can often be made to serve in introducing new varieties of crops and plants into the neighborhood.

In some cases co-operative enter-

prises can be carried out on the school farm; for example, co-operative incubating of the eggs each spring for the neighborhood. But general co-operative enterprises will more naturally belong to the adjoining co-operation under the direction of a superintendent of the co-operative store and attached co-operative projects. In many cases a co-operative plant for canning the surplus fruit or vegetables of the neighborhood can be made to succeed, as also the co-operative slaughter and sale of the surplus domestic animals and poultry.

#### **Broader Text Books Needed**

Ere long we may hope to have text books somewhat broader and better adapted to our consolidated rural schools. A basal system of readers, for example, might properly be supplemented by readers which give, besides the wholesome point of view of nature and of country life, not a few useful facts leading up to a study of scientific agriculture and home making. The problems of the school text book on arithmetic should relate to technique of farm calculations, rather than to technique of the banking house.

The geography should deal in part with such country life interests as the great avenues for the transportation of farm products and the places whence come farm machinery and other supplies. The histories might properly discuss the source of the racial types which are being blended in our country life. The geography of agricultural production, the source of the species, breeds and varieties of our domestic animals and plants should be introduced. And the children should be given the point of view and spirit of the student of nature, of scientific research and of economic study.

Beginning with the seventh grade, elementary texts dealing with vocational subjects should be added, along with the traditional lines of school work. Series of texts on vocational subjects like the series of mathematical and historical texts for the traditional school subjects should be developed for each vocational subject, as

farm management, live stock, dairying, horticulture, household science and household art. No doubt these consolidated rural schools, when fully developed, will demand many new books, thus bringing to all farm youth the choicest and most useful of that new body of knowledge which is being wrought out by research in our departments of agriculture and experiment stations.

#### **Demonstration Work is Vital**

But the school principal and his assistant will find it possible to supplement the text book work of these vocational subjects with most vital demonstration and practice work in the laboratories of the school and on the school farm and on the farms and in the homes of the neighborhood. These two teachers will be able to lay hold of the best vocational, social and civic thought of the community in a most vital manner and to add to it; and, if properly supported by the pastor and leading farmers and farm home makers, these teachers will be able to lead in producing a civilization far in advance of that which existed when the district was without a vital center and was only loosely attached to the one-room school, the country store, the country church and the distant village.

The principalship of the consolidated rural school is at once a place of great opportunity for service and for development and requires large attainments. One of the most serious features of the movement for the development of an effective country life educational scheme is the proper preparation of these vocational teachers.

A good beginning toward the preparation of this greatly needed class of public servants was made when congress, in 1907, in the so-called Nelson amendment, gave to each state agricultural college \$25,000, or a total of \$1,200,000, with permission to use this money for the preparation of teachers to instruct in agriculture, the trades and industries and home economics in the lower schools. Another bill now before congress would

give nearly a similar sum for a like purpose to the state normal schools. There are growing up in a number of states agricultural high schools, one in each 10 counties. These secondary schools will bring forward large numbers of farm youth to the state agricultural colleges and state normal schools who can be made into splendid teachers if these two classes of higher institutions will devote themselves vigorously to this work.

It must be said that only a part of these institutions have seen a vision of what is coming in the way of demands for country life vocational teachers.

#### To Train the Teacher

The farm mothers of the country and the farm fathers have no more important school interests than that teachers shall be developed from a portion of our rising country youth who shall be trained to make successful both the general and the vocational sides of a county system of strong schools, combining elementary and high school instruction, in every county in the United States. Forty thousand consolidated rural schools under the leadership of 40,000 men and 40,000 women instructing 2,000,000 farm boys and girls from 13 to 18 years of age in the seventh, eighth, ninth and tenth grades, and working in the summer time with the children and their parents on the home farms and in the farm homes, would care for three-fourths of our country life educational problems. The other one-fourth would rest upon the departments of agriculture, the experiment stations, the state colleges of agriculture, the state normal schools, the agricultural high schools and agricultural departments of other schools.

With such a system in each county of highly developed local schools, agricultural departments, colleges and experiment stations would find that they could do much of their best work through these local institutions and through the organizations which grow up about these county district centers. The state and the nation would find that the work of their institute lectur-

ers, their itinerant corps of school teachers, their farm demonstrators, their correspondence courses and their short vocational courses would be vastly more effective than now when the farmers nearly all depend on the education of the one-room school.

I cannot well leave this subject without calling attention to the possibilities of civic as well as educational organization in the enlarged school district. Here the 150 families will soon all be acquainted. The school life will train the young people in co-operative organization. A country life league will become the central civic body of the neighborhood. Societies or committees, as of horticulture, dairying, women's clubs, etc., will serve to supplement the work of the general civic league. This compact organization will have the impulse, the strength, the opportunity, and the will to function in affairs outside the district, as by sending delegates to the county country life federation, the county grange, the county horticultural society, the county federation of women's clubs, etc. And through the county organizations these basic county life leagues will be able to send representatives, through the county federation to the state country life federation, through the county horticultural society to the state horticultural society, through the county federation of women's clubs, to the state federation of women's clubs. And delegates will eventually be sent thence to national federations, granges and horticultural societies, and we shall have bodies with standing and strength adequate to solving many of the great country life problems of the county, state and nation.

Because it is practical to raise larger families in the open country, especially if the farm and farm home be properly supplemented by strong schools and other co-operative enterprises; and because the farm under these conditions is the place where the best children could be produced, we have the national and racial need that a larger part of our best blood reside on the farm. If our best blood

will here multiply more rapidly on the average; and if the worst blood will remain in the city and will multiply less rapidly on the average, the open country can send a constant supply of people to the city. If this process can be carried on permanently the country will continue to improve the race in both country and city.

The great conservation movement directed attention mainly to the conservation of the soil. A parallel need is that attention be directed to conservation of the best one-fourth of humanity, that it may replace the poor blood and become the whole people.

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### THE MODEL RURAL SCHOOL

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By Mrs. Marie Turner Harvey, Kirksville, Missouri

With extreme reluctance do I attempt to present so large a question as the model rural school problem in such a brief time.

The model rural school? No, A model rural school; that is to say, an institution which, by reason of building, equipment, curriculum, outlying grounds, accessibility to every child of school age in the district and a teacher or a corps of teachers having both aptitude and preparation for the work engaged in, "reaches out and touches intelligently, sympathetically, constantly and consciously" every social and economic interest that concerns its community.

A school successfully complying with all conditions in the bottom lands of the Mississippi river in Missouri would not measure up to its responsibilities if transplanted to a community in the dry-farming section in Colorado and Utah; nor would an efficient school in a southern Texas county be so in northern Minnesota.

That we have been so slow to recognize the simple truth that the school should and can supplement the home in preparing children for the business of life is not so surprising when we consider the ease with which, until recently, large holdings of rich

virgin soil could be acquired—and also remember our habitual devotion to tradition.

#### New Wine in Old Bottles

That "little red school house" so dear to memory made a wonderful contribution to elementary education in the nineteenth century, and was a potent force in the development of true Americanism. But it served its best purpose in pioneer days when industry was centered in the home, where they used to grow their own food, spin and weave their own cloth, make their soap, dip candles; there the child was called upon while still young to share his parents' activities, and thereby gained an insight into the industrial processes, habits of work and training for his future occupation. Then the school was properly a place to which children were sent for a few hours a day to pick up the essentials of reading, writing, arithmetic and spelling, and a little information about geography and history.

This is the twentieth century; industry has passed forever to the factory system. Science, like chemistry and physics, has become a vital factor in the productive processes in country and city alike. The home can no longer give the boy and girl training for life's work, and the impossibility of the typical rural school doing so is apparent; yet the necessity for adjusting the school to these changed conditions has not been understood in the open country. What has been the result? The boy, if he would have the education that is becoming more necessary with each passing year, if he is to have a fair chance to make a good honest livelihood, must leave home, often at great sacrifice to the other members of the family, at private expense, to go to a town school designed for city children, there to be educated away from the farm, and worst of all, to live with strangers having no special interest in his development at that time of life when he most needs the daily advice and companionship of his parents.

You know as well as I do that for

years the energetic, intelligent types of boys and girls have been leaving the farm, pouring a steady stream of the country's best blood into the towns and cities, weakening the country to a greater degree than the cities have been helped. Seventy per cent of the children of our land are in the country; 30 per cent get less than a fifth-rate education; of these probably only 6 per cent receive a high school education. There is a tremendous waste of child life through lack of opportunity, yet no class of youth gives greater promise of usefulness than the country children. These children deserve and have a right to school privileges in every way equal to those in the best city school systems, but fitting them for country life instead.

#### Some Typical Rural Schools

As an incentive to earnestly consider ways and means to bring many "model" schools into existence as quickly as possible, let me show you the typical rural school by a few concrete examples:

Let me show you a rural school in North Missouri—and its duplicate is all over the land—that I have viewed many times from a railroad train the past seven years, a school within the shadows of a model rural school house, where patrons, directors and teachers must have heard of the state superintendent's repeated appeals for annual tree-plantings, clean-up days, etc. This school building has weathered such influences successfully, and there it stands today unchanged, except by the wear of time and continued neglect. It is the box-car type of building, with the usual out-buildings, in themselves a menace to the moral and physical health of the children. It stands in a yard that is bleak and bare—a type so universal that the traveler from any section of the United States of America, in passing, would point it out as a "typical rural school." That house as you see it is a monument—to what? To the ignorance of parents and teachers of the potent influence that physical surroundings exert on the lives of children therein housed; ignorance of the effects of

physical environment on the quality of the citizenship this school turns out.

In the interior of this house is a big red stove standing in the middle of the room, which makes even heating impossible; four windows on each side of the building, placed opposite each other, causing a strong cross light, ruinous to the eyes; the seats and desks are of the kind in use 40 years ago and are placed without regard to the needs of growing children. There is no library, no maps or globe, no pictures on the wall. Yet, in this same section, I have noticed a steady improvement in the farm conditions, in fences and gates, in the variety and grade of stock, in the number of good barns that stand out for miles as an index to the progress and prosperity of the farmers—barns that appear in strange contrast to that lonely building where those farmers' children are expected to receive their education.

In a populous and prosperous county in another section, there is a district noted for the contrast between school house and barns, the barns again having decidedly the better of the comparison. The school house is built on piles; the rough floor has large cracks which let in so much cold as to compel children to sit on their feet much of the time to prevent frost bites during severely cold weather. Its equipment is in keeping with the structure. The yard, bare and bleak, joins a cemetery on one side and slopes so as to carry the drainage from both yard and cemetery into the well which furnishes the drinking water for that group of helpless children.

One more illustration of this typical institution. The house stands on the summit of a hill—no shrub, tree or evidence of garden mars the perfect monotony of its surroundings. There are the usual out-buildings, but so irregularly placed as to convey the impression of having been dropped there by a great storm.

This school building has stood here 30 years; children are using the seats and desks that served their fathers

and mothers in many cases; the floor's undulating surface bears witness that we can leave our footprints elsewhere than on "the sands of time" and the several highly-colored advertisements on the walls only accentuate the normal desire for the beautiful. The only modern touches are the sanitary drinking tank and individual cups presented by the teacher, and some specimens of children's work.

This view (showing picture) shows school massed on the temporary platform for a song; it was taken during a two and one-half hour's entertainment at the end of the school year of seven months. Nowhere in Missouri or elsewhere could you find 35 boys and girls of higher promise; without exception, they are above normal, physically and mentally—with great possibilities of usefulness to themselves and to others.

The length and character of the entertainment alone afford topic for a lecture; suffice it to say here that the effects of this poor and melodramatic program on the emotions of the audience, as shown in the smiles, and tears, and rounds of applause, bore witness to something more than the natural interest in their children's efforts. It pointed to the soul hunger due to their complete and long isolation, for this school is six miles from a town of 150 population, and 20 miles from the county seat. The little teacher must recuperate next year from the strain of work under these conditions, and tears of patron, pupil and teacher mingled in the touching farewell. Each party to the contract has done his best according to his light, and the significant thing is that this school ranks highest of its class in that county.

If it be true, as has been asserted, that "economic productivity and profit hold in themselves neither the cause nor the cure of the abandonment of rural life by the cream of its population, that rural life must be made more humanly interesting, more rightly enjoyable, and that so long as the cities have better schools, better churches, better libraries and better

art, just so long will men migrate to these centers," then is it not timely that such a body as this should give the school problem its most serious thought? Why? Because, I am bold to assert, this rural school is capable of changing the whole attitude of the home life and influencing the part that woman is destined to play in the development of that sane, stable, satisfying country life absolutely essential to the preservation of our democratic ideals.

#### One Farm Woman's Work

It has been wisely said that a nation cannot rise higher than its women. As your women are, so will be your nation. "Educate a boy and you educate an individual. Educate a girl, and you educate a whole family." However, I am pleading for the best possible education for both boy and girl, for both are equally concerned in the business of home-making—the chief business of the nation—since the home is the unit of American civilization. The district school, supported by public funds, with its total lack of denominational leanings, officers and best local point for an institution that can serve the whole community with a greater degree of efficiency than it has ever done.

I yield not to the temptation of suggesting to you why the farm women cannot exert the influence they should in the school, church and social work of their district. Recently, when this subject came up for discussion before my class studying "Country Life and Problems," a young man, in order to make his point clear, gave a summary of his mother's daily routine of work at that season of the year. It ran somewhat like this:

1. Rise at 4:30 a. m.
2. Prepare breakfast while men milk cows.
3. Leave dishes, hurry to the cellar, strain milk—get cold water from the distant well to chill milk—carry out the sour and skimmed milk for pigs, calves and chickens; wash milk vessels and carry out "to sun".
4. Hurry, feed poultry.
5. Hurry, wash dishes.

6. Hurry, gather vegetables and fruit for dinner.

7. Prepare the same for table.

8. On certain days churning, baking, washing and ironing are done.

9. Feed poultry.

10. Prepare dinner.

11. Wash dishes, feed poultry, sew or mend, "put up" fruit or vegetables.

12. Get supper, wash dishes, look after poultry and milk, work in the garden.

13. Scrub kitchen on certain evenings—after the family have retired, to prevent "tracking the floor."

14. Retire about 10 p. m.

This program, you notice, takes no account of her work with the younger children. Often the farm woman must supply the wood-box or coal-hod, bring in the water from a distant well, milk the cows and spade the garden. That the average American farm is overburdened with physical labors, and that her complex duties of mother and housekeeper are carried on under inexcusable hard conditions as compared with those that obtain on the farm, must be charged to traditional habits of thought; yet the effect on the home and community life is a large factor in producing the very conditions from which so large a percentage of country people seek to escape by moving to towns.

The life history of too many farm women and the relation of their industrial status to their social life is pretty well told in the few lines I shall quote from Hamlin Garland:

"Born and scrubbed, suffered and died."

That's all you need to say, elder,  
Never mind sayin' 'made a bride,'  
Nor when her hair got gray.  
Jes' say, 'born an' worked t' death:'  
That fits it—save y'r breath.  
Made me think of a cloak run down,  
Sure's y'r born, that old woman did;  
A workin' away f'r ol' Ben Brown,  
Patient as Job an' meek as a kid,  
Till she sort o' stopped one day—  
Heart quit tickin', a feller'd say.  
Wasn't old, nuther, forty-six. No,  
Jes' got humped, an' thin an' gray,

Washin' and churin 'an' sweepin', by  
Joe,

F'r fourteen hours or more a day.

Worked to death. Starved to death,

Died f'r lack of air an' sun—

Dyin' f'r rest, an' f'r jist a breath

O' simple praise f'r what she'd done.

And many's the woman this very day,  
Elder, dyin' slow in that selfsame  
way."

We have reached that stage where it becomes woman's opportunity and duty to wage a publicity campaign and stimulate evolution by vigorous organization, expert leadership and wise legislation. Bills to provide for medical inspection of schools, to make women eligible to vote on school questions, to make them eligible to serve as school directors, to do away with the public drinking cup, compel irresponsible parents to give their children an elementary education; in short, all measures looking to the enlargement of the school's usefulness in the community, should be followed by parents and all good citizens, and this is urged for the country children who are not enjoying equal rights in the matter of education with those of the cities.

#### The Model Rural School

In contrast to the schools I have pictured, the model rural school at Kirksville, Missouri, exemplifies, I believe, the simplest and yet the most complete, practical and economical architecture ever devised anywhere for rural or village schools and the most effective facilities for instruction used in schools of corresponding grade anywhere.

The main school room is 22 x 27 feet in the clear, and the children face the east. Mild light in abundance is from the north, or left, side of the children, and a ground glass window at the rear admits sunlight for sanitation. The school room has adjustable seats and desks, a telephone and a teacher's desk. A stereopticon is hung on the wall at the rear, with a screen at the front. The school has a small organ, ample book cases, shelves and apparatus. Pure air en-

ters above the children's heads and passes out at the floor through a ventilating stack through the fireplace. There are two toilet rooms with all the ordinary fixtures, including lavatories, wash bowls with hot and cold water, pressure tanks for hot water and for heat, shower baths, with hot and cold water, ventilating apparatus, looking glasses, paper toweling and liquid soap. All toilet room walls contain air chambers to deaden sound.

The basement contains eight rooms, a furnace room, a coal bin, a bulb or plant room, a dark room for children's experiment with photography, a laundry room with tubs, drain and drying apparatus, a gymnasium, a tank room for water pressure system, etc., and an engine room containing a gasoline engine, water pump, electrical generator for lighting, etc. All rooms are wired for electricity and plumbed for gas. The basement is thoroughly ventilated.

#### This Attic was Discovered

Every rural school house has an attic, but this seems to be the only one whose attic was ever discovered. This attic is 35 x 15 feet inside measurement, all in one room. It is abundantly lighted through gable and roof. It contains modern manual training benches for the use of eight or ten children at one time. It has a gas range and other apparatus for experimental cooking. It is furnished with both gas light and electric light. It has a wash bowl with hot and cold water, a large kitchen sink, a drinking fountain, but no drinking cups, a disinfecting apparatus, a portable chemistry-agriculture laboratory, and numerous other equipment. It is properly heated and ventilated and doors and windows are screened in season.

This school, which is operated under the direction of the state normal school, exists for the purpose of answering questions that are of national import, and not to carry out formulated principles or theories. It is designed to discover and exemplify ways in which a rural school may be

the community, to show how the curriculum may be modernized and adjusted to meet the intellectual, industrial and social needs of the country community, and to show what may be done by one teacher in carrying out the modern course of study.

The curriculum for the first six years does not differ in aim from that of the best contemporary elementary city schools, but the advanced grades may be given work differentiated, to some extent, but according to sex and according to future vocational life. Since agricultural pursuits are nearest at hand and hence best known, the farm industries receive special emphasis and constitute the point of departure in order to better understand the complicated life outside of the farm as well as to accomplish the more important task of cultivating faith in agricultural pursuits. In order to have this necessary faith, the rural children must be taught that, in living a successful country life, there is "a chance to use brains, to develop talent and to utilize education." To attain greatest success on the farm, one must know the principles of production and farm management, and the economic laws to which agricultural industry is subject.

In addition to the ordinary common school subjects, we teach agriculture, including gardening in all its phases, corn growing, judging, testing, etc.; breeds, varieties, uses, feed, care and market price of farm animals; the dairy and its products, and nature study. Our course in home economics for the children includes cooking, butter making, laundry and house work. Bench work in wood, sewing, hygiene and general sanitation are not neglected and physical education is given attention in the special gymnasium in the basement.

This kind of a course of study fulfills the desire not only for boys and girls who expect to be farmers or keepers of farm homes, but also seeks to prepare the boy or girl who may hear the call to life work outside of the farm, because it is at once cultural

and preparatory for differentiated work.

(Mrs. Harvey's address was accompanied by stereopticon views in which a number of most interesting pictures of the model school were shown.)

### AIMS OF THE CONGRESS

Miss Mary S. Snow of Chicago, chairman of the committee on permanent organization, constitution and by-laws, then presented the report of that committee as follows:

**Article 1. NAME**—This organization shall be known as the International Congress of Farm Women, auxiliary to the International Dry-Farming Congress.

**Article II. OBJECT**—The woman's auxiliary to the Dry-Farming Congress aims to improve the conditions, financial, physical, social and spiritual, of agricultural homes. It aims to understand more completely the significance of the farm to the life of the nation and the dignity of the position of the farm woman as co-worker in the most potential and far reaching of the national industries; to increase conservation of energy through social intercourse, and by observation of processes; to develop to a greater understanding of modern appliances and education in scientific management of work; to further develop the home through conference with authoritative experts on dairy methods, poultry culture, kitchen gardening, improved methods of equipping the home, problems of nutrition, children's welfare, industrial education, including home economics, the increase and proper use of leisure and the stimulation of social intercourse in rural communities. This organization stands also for a more generous state and national support and encouragement of institute and extension work among farm women.

**Article III. SESSIONS**—Annual sessions shall be held coincident with the sessions of the International Dry-Farming Congress.

**Article IV. MEMBERSHIP**—All farm women and other women vitally interested in agricultural pursuits are eligible to membership in this organization. Delegates accredited in the manner named in the constitution of the International Dry-Farming Congress shall be entitled to vote.

**Article V. OFFICERS**—The officers of the auxiliary shall consist of a president, three vice-presidents, a secretary-treasurer and an executive committee of one from each state represented by membership in the International Dry-Farming Congress, elected by the auxiliary Congress at the annual meeting after the manner prescribed by the International Dry-Farming Congress.

**Article VI. AMENDMENTS**—This constitution shall be amended after the manner prescribed by the International Dry-Farming Congress.

The report was adopted as read.

Following the plan in vogue in the International Dry-Farming Congress, the following nominating committee was appointed, one member being selected by the delegates therefrom from each state, territory, nation or province represented in the Congress: Michigan, Miss Buell; Nebraska, Mrs. Stevens; Canada, Mrs. Stavert; Colorado, Mrs. Brooks; Idaho, Miss Oliver; Illinois, Mrs. Mosier; Iowa, Mrs. Kepper; Kansas, Mrs. Stearns; Minnesota, Dr. Webb; Montana, Mrs. Melvin; Missouri, Mrs. Harvey; New Jersey, Mrs. Jeffers; New Mexico, Mrs. Mondell; Oklahoma, Miss Mathews; South Dakota, Mrs. Wells; Utah, Mrs. Widtsoe; Washington, Mrs. Small; Wyoming, Mrs. Watson.

Thereupon the session adjourned.

## Sixth Session, Thursday Afternoon, Oct. 19

Mrs. Slocum occupied the chair, introducing as the first speaker of the afternoon Mr. Enos A. Mills, of Estes Park, Colorado, who gave the Congress a very interesting half hour's talk about "Nature and Life," his illustrations being largely drawn from his own varied experiences in the wilds of the Colorado Rockies.

Prof. C. P. Gillette of the Colorado Agricultural College next spoke as follows:

### THE HOUSE-FLY IN ITS RELATION TO PUBLIC HEALTH

By C. P. Gillette, Entomologist, Colorado Agricultural College, Fort Collins, Colorado

Most of our present knowledge of the relations that exist between insects and certain contagious diseases of man and the lower animals has been acquired during the past 20 years, and much of it during the past 12 years. About the first disease that was proven certainly to be due to the bite of an insect was Texas or splenic fever among cattle. The disease is caused by having a certain organism, (piroplasma) injected into the blood by the cattle tick, *margaropus annulatus*. Prevent the tick bites and the disease disappears completely.

Spotted fever among human beings was long a most mysterious disease, both as to its real cause and the manner of its distribution, but now scientific workers have been able to prove that the disease is produced, like Texas fever in cattle, by the bite of a tick that has first acquired the organism from some other mammal, such as a mountain goat, or sheep, or squirrel.

What a pity it is that our fathers did not know that malaria, or fever and ague, is due entirely to the bites of a certain kind of mosquito, *anopheles maculipennis*, and never to the breathing of an imaginary "miasma" of the swamps. Through the drainage

of the breeding places of the mosquito and the care of malarial patients, so that mosquitoes shall not bite them and so give them the malaria germ to carry to someone else, this disease can be reduced to a minimum.

It is only a few years ago when physicians were ignorant as to the cause of yellow fever, but now they know that there is only one possible way for a person to get this disease, and that is by being bitten by a mosquito of the genus *stegomyia*, that has first bitten someone having the disease. Knowing this, the United States government has almost completely eradicated the disease in the southern states and in Cuba by promptly quarantining yellow fever patients in a room thoroughly screened against mosquitos. There is no need to fear another bad outbreak of this disease in a civilized land. It is the knowledge of these facts in regard to the transmission of yellow fever that has, more than anything else, enabled the government to successfully dig the Panama canal, where France failed, largely from a lack of the same information. Fleas transmit bubonic plague, and the tsetse flies, through their bites, cause the dreaded sleeping sickness that attacks man and makes the keeping of any mammal in portions of Africa almost impossible. Many other similar cases might be added, but I was to speak to you about the house-fly and its relation to public health.

#### The House-Fly's History

There are a large number of organisms, both plant and animal, that depend largely for their existence upon human habitations and the operations of man. One of the most important of these is the common house-fly, *musca domestica*.

The ancestral birth-place of this fly, like that of man, is unknown. This insect was first technically described by the great Swiss naturalist, Linneus, more than a century and a half ago. It is cosmopolitan in its habits, occur-

ring in practically all lands inhabited by human beings.

It would be difficult, if not wholly impossible to determine who first suggested that the house-fly might be a carrier of disease, but the first to call attention to this danger in an important manner in this country was Dr. L. O. Howard, of the bureau of entomology, Washington, D. C., through the publication of a paper from the bureau in 1900. During the last three or four years, many papers have appeared on the habits of this insect and the part it plays in the transmission of disease germs. Dr. Leidy announced his belief in 1871 that flies in hospitals were instrumental in spreading gangrene from one patient to another, and for more than two centuries there has been a rather prevailing opinion that there is more sickness in the years when flies are most abundant. It has also been observed that when flies are most abundant, late in summer or early in the fall, is the time when people are sick with typhoid and bowel troubles, the germs of which are now known to be carried by house-flies.

The germ theory of disease is no longer a theory, except to the uneducated. As well try to find a farmer who does not believe in the germ theory for the growth of a crop of corn or wheat or alfalfa, as a scientifically trained man who does not think it necessary to first sow the seeds, or germs, of tuberculosis, typhoid, or measles, in order to produce these diseases.

Some of these germs are carried by currents of air as minute particles of dust, while others are seldom communicated in virulent form, except by direct contact, or in foods or drinks, or by insects. When an insect is the vehicle, it first gets the organism upon or within its own body and then carries it to man or his food.

#### It Sees With a Thousand Eyes

The organs of special sense in insects correspond to similar sense organs in higher animals. For example, they have parts that are specialized for the sense of sight, hearing, smell,

taste, and feeling, and it is not at all certain that they may not have other organs of special sense that we do not know of. The organ of sight in the house-fly, as well as in many other insects, is in some respects much more highly developed than in man.

Like most adult insects, they are possessed of highly developed instincts which enable them to find their food and reproduce their kind. It is the instinct of the fly, and not its reasoning powers, that directs it to the proper situations for the deposition of its eggs and which lead it to its special food supplies. In many insects, the instincts are so highly developed as to be actually of as much service as reasoning power would be. For example the honey bee collects nectar and pollen, stores it in the hive, builds its comb, and cares for and rears the young bees wholly from this power that we call "instinct," and entirely without reasoning powers.

#### Four Stages of Development

House-flies, like most insects, pass through four stages in their development—egg, larva or maggot, pupa, and adult; and no one of these stages resembles very closely any other.

The egg is pearly white in color, a long oval in form and measures about one-twentieth of an inch in length. The eggs are usually deposited in masses of from three or four to several dozen in an irregular cluster. Anyone who has ever seen a piece of fly blown meat will understand at once the appearance of the eggs of the house-fly. Dr. Howard and other observers state that about 120 is a very ordinary number for a fly to deposit at one time and during the three or four weeks of the fly's existence, it will deposit from three to four such masses of eggs, making a total of not less than 400 or 500.

Authorities seem to agree that, in warm weather, the egg will usually hatch in about 12 hours. It does so by splitting along the side in such a manner as to allow a narrow strip of the shell to be raised by the wriggling maggot, making an opening through which it easily makes its escape. This

maggot is white in color, and when fully grown measures about one-fourth of an inch in length. The food that it devours is entirely of a liquid nature, as the maggot has no jaws with which to masticate solid particles; therefore it is necessary always to have moist conditions for the development of the maggot. The length of time required to grow to maturity varies with the food supply and the temperature, but in mid-summer the maggots will become mature, with an abundant food supply, in from four to eight days, with an average time of about five days.

When a maggot is fully grown it soon loses all of the appearance of a maggot and changes to a mahogany brown object that is entirely unable to move and which will measure not to exceed one-sixth of an inch in length. The entire development of this insect, from the laying of the egg to the hatching of the fly, may be as short a time as eight days, and the average time in the summer probably does not vary a great deal from two weeks. About 10 days to two weeks after the fly escapes from its pupa case, it is fully mature and able to deposit eggs again for the next brood and probably continues to live, on an average, about three or four weeks.

#### Ten Generations in a Year

It will be seen from the length of time required for this insect to go through its entire development that it would not be difficult for it to go through at least 10 generations in a year. If one-half of the flies produced are females, and if they deposit on an average 400 eggs each, and if all of the eggs deposited should result in adult flies, the number of individuals that would be produced by the 10 broods is something entirely beyond our powers of comprehension. A little figuring shows that the flies that would be produced under these conditions would make a solid blanket of flies covering the entire surface of the earth to the depth of three or four inches. I mention this simply to show the possibility of rapid increase among

insects when permitted to increase unchecked, and to explain why it is that sometimes an insect that is very scarce early in the season may become extremely numerous before the end of the summer. Like all other living organisms, the house-fly has its obstacles to contend with and there is never more than a small fraction of the eggs deposited that ever result in adult flies.

#### Manure a Prolific Breeding Place

The house-fly breeds in filth, for the most part on decaying vegetable matter of one sort or another. Fully 90 per cent. are said to develop in the manure of horse and cow stables and pig pens. Garbage, out-houses, carrion, barley malt, and spent hops are all mentioned by Dr. Howard as favorable breeding places. The most dangerous of these, so far as the spread of disease is concerned, is the open out-house so common in the poorer sections of our cities and in country districts.

When the fall frosts come on, the fly disappears rapidly in numbers and those that live endeavor to find warm rooms or places of protection in which to spend the winter.

There is some difference of opinion among investigators as how far house-flies travel. It seems that they seldom go farther than a half mile from the place of hatching unless it is necessary in order to find food. Where food is abundant, it is probable that few go so far. If these views are correct, one can do much to relieve the fly nuisance, by cleaning up his own premises and inducing those in his immediate neighborhood to do the same.

#### How Flies Affect Health

Aside from being a mere annoyance to sick or nervous people, the house-fly is a positive menace to the health of a community through the distribution of disease germs from those who are affected to those who would otherwise be free from the disease organisms. Flies distribute these organisms in two ways. By getting their feet or other portions of the body contaminated with the organisms, they carry

them to articles of food or drink. It is undoubtedly true that disease organisms are carried by flies to candy, sugar, cookies, nursing bottles, and other articles that are liable to go into children's mouths. Dr. Graham Smith says that flies will average about 1,250,000 bacteria each; flies also devour disease organisms while taking their food, and it has been found from repeated experimentation that disease germs are seldom, if ever, killed by passing through the alimentary canal of a fly and so are distributed by means of fly specks to articles of food and drink.

The adult fly feeds exclusively upon foods in liquid form or upon solids that they are enabled to dissolve by means of their own saliva. Dr. Cobb says that a fly will often take food at a single meal equal to one half its weight. Probably all have noticed that a fly will sometimes protrude a little drop of liquid from the tip of its proboscis, or beak. Every housewife knows that flies are able to gnaw away a lump of sugar that has been left exposed. They do this by moistening the sugar with their own saliva so as to dissolve it and then taking the sweetened saliva as food. In this way, they are able to feed upon any dry substance that is capable of solution in their saliva.

#### Disease Germs Most Carried by Flies

The germs of typhoid fever, bacillus typhosus, are carried either upon the feet or in the alimentary canal of the house-fly from the slops that are carried from the sick room. It has also been determined in recent years that a great many people who have had typhoid fever continue to carry about the germs of the disease within their bodies for weeks or months. Investigations have shown that 13 per cent. of typhoid patients carry the germs for six weeks after apparent recovery. Some who have never been sick with typhoid carry and disseminate the germs. In some cases the germs are carried for years after the person is apparently entirely recovered from the disease. It has been estimated that about 5 per cent. of

typhoid patients belong to this class, and these people become a perpetual source of infection for the distribution of the typhoid organism in the communities where they live.

#### Cholera and Cholera Infantum

The house-fly is probably the most common vehicle for the distribution of the organisms producing cholera, cholera infantum and diarrhoea from person to person, and it has been noted by physicians for more than two centuries that these diseases are most prevalent at those seasons of the year when house-flies are most abundant. The United States census bureau records 44,521 children under two years old dying in one year from summer complaint, and Dr. Irving Fisher estimates that fully 60 per cent. of these could have been saved by a little pains to keep the house-flies from articles of food and drink in the home.

#### Tuberculosis

The tubercle germ is readily picked up by the house-fly from the sputum of tubercular patients. Those who have investigated this matter state that even the dry sputum is quite readily dissolved in the saliva of the house-fly in the manner mentioned above and is readily carried by it to the food of people who are free from tuberculous infestation. Flies have a special liking for human sputum, whether moist or dry.

#### Ophthalmia, or Pink Eyes

Physicians believe that this disease is very often conveyed by house-flies from one patient to another where the flies are at all abundant in the homes of children whose eyes are affected.

We cannot hope to exterminate the house-fly, but very much may be done at comparatively slight expense to keep it under control and to prevent a very large percentage of its injuries. It is usually better to prevent a nuisance than to abate it, and as it has been ascertained that fully 90 per cent. of the house-flies are bred in and about stables, it is especially important that we give our attention largely to these breeding places.

To begin with, stables should be

thoroughly and regularly cleaned every day. The manure should not be allowed to accumulate in exposed, moist piles for more than a week at a time, but should be hauled away and either plowed under or spread thinly upon the surface of the ground. Where it is impossible or impracticable to promptly haul the manure from the stables, it may be thrown into tight bins or boxes that are provided with fly proof screens, so that no flies can get into the boxes for the deposition of their eggs and also so that any flies that might develop within these boxes would be unable to escape.

#### Iron Sulphate is Good

Dr. S. A. Forbes, state entomologist in Illinois, has experimented with various insecticides for the purpose of destroying the eggs, or larvae, before the flies hatch. In the course of his experiments he found that the eggs and maggots could be very successfully killed by using iron sulphate in the proportion of two and one half pounds to each gallon of water and, when thoroughly dissolved, this quantity was sufficient to treat 15 pounds of the manure. He found that this would entail an expense of only about one to one and a half cents per horse per day and it also has the advantage of being a complete de-odorizer and does not in any way injure the land upon which the manure may be spread later.

Screen doors and windows should be used wherever possible to prevent the entrance of flies to our houses, and especially to the kitchens and pantries.

#### Screen Traps and Poison

There are many kinds of screen traps that are used for the purpose of catching flies, and some of these are markedly successful when rightly used. Perhaps the best type is that of a wire screen cone projecting upward and opening by a small perforation into a large receptacle. Traps of this kind are familiar to nearly everyone in some form. They may be used very successfully near the stables, outside the kitchen doors, in the house, and wherever flies congregate. Their success depends very much upon the

bait that is used to attract the flies. Dr. Howard has recommended a screen trap attachment to garbage cans by which it is possible to catch many of the flies.

Every house-wife is familiar with the use of poison paper, which needs only to be put in a dish of water to attract and destroy the flies that feed upon the sweetened liquid. The use of sticky fly paper is too well known to need any special comment and, though unsightly and not altogether pleasant to have about the living rooms, it does enable the house-wife to catch large numbers of flies if placed in the windows or in other places where flies tend to congregate.

In 1903, Professor Popenoe of the Kansas agricultural college announced that formalin had been used very successfully in his laboratory for the destruction of house-flies. A simple four per cent. solution in water was used. Later experimenters have reported similar results but recommend the addition of a little sugar or milk, or both. The formalin solution may be prepared in an open dish, or a bottle may be filled and then inverted in a saucer and placed where the flies will easily find it.

Pyrethrum, also sold as buhach, Persian insect powder, or simply insect powder, is very efficient for the destruction of flies in a closed room, either by thoroughly dusting the powder through the air of the room by means of a powder gun, or by slowly burning the powder on a hot shovel so as to fill the room with the fumes of the pyrethrum. Close the room tightly and make the application just before retiring, and in the morning the flies will all be on the floor in a stupid condition, if not dead, so that they can be easily swept up and thrown into the fire.

A committee of the American Civic association has reported that about 20 drops of carbolic acid may be evaporated from a hot shovel in a living room of ordinary size with good results in the destruction of the flies that are present.

Like all animals in the state of

nature, flies have their natural enemies to keep them from becoming too numerous. Perhaps the most important of all of these is a contagious fungous disease, *empusa moscae*, which destroys great numbers of the adults every year, and especially late in the summer and during the fall. The flies dying from the disease are most often noticed clinging to the window glass dead, with a silvery halo of spores upon the glass about and beneath them.

Insect parasites, while known to attack the larvae and pupae, seem not to be very destructive to them. Spiders and wasps devour large numbers of flies, and among the higher animals the toad, frogs, lizzards, and some of the birds feed upon flies and other insects.

If the people can be brought to believe the fact that tens of thousands of human beings, largely babies, die every year in this country as the result of uncleanliness and the entrance of the house-fly into their homes, it will be an easy matter to get them to take the reasonable precautions and incur the moderate expenditures that would be necessary to prevent the greater part, at least, of this loss of human life. Those who do know the danger should show their faith by their works and raise a note of warning for the protection of others.

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The Kiltie Band of Lethbridge, Alberta, furnished the music of the afternoon.

## Seventh Session, Friday Morning, Oct. 20

The session was called to order by the president, who introduced Miss Inez Kinney of Denver, Colorado.

### WHAT THE Y.W.C.A. IS DOING FOR THE COUNTRY GIRLS

By Miss Inez Kenney, Traveling City Secretary of the Young Women's Christian Associations, Denver, Colorado

This paper is to deal with the adapting of the established principles and methods of Young Women's Christian association work to the rural community, that the country woman may share those ideals and advantages which for years we have been striving to develop for the city and the college girl. Outward activity has been undertaken only after long and careful investigation by a national secretary whose sympathy and appreciation for the people concerned amounts to a great enthusiasm and who by her study and experience has attempted to understand every side of the country problem in order that whatever should be done should be for the good of the

community. Our efforts are along the line, not only of association principles but of the needs and suggestions set forth in the report of the country life commission. It is a matter for thanksgiving on the part of Christian people that the men representing our government, in setting forth the power of the rural population and the means for increasing that power, should lay such emphasis on personal character and neighborhood righteousness, the religious basis and spiritual forces. The church and its allies are given large recognition and called upon for great service. The Young Men's Christian association is several times mentioned with approval. Our Young Women's Christian association work in this department was only beginning at the time of this commission's report, but, with the activities along lines similar to those of young men, we feel that we share their approval and their call to accomplish much.

If the great natural movement is to be used in this enormous field to touch the 6,000,000 girls in these communities it must be by having the

rural life leaders know first of all the things for which we stand and what we are about.

#### A Work for All Women

This association is for all women of whatever interests and work, of whatever social opportunity and whatever belief. It is religious, and social in the broad modern sense of the word social. Its controlling power is in the hands of the members of the Protestant church. It owes its life to the church and stands to supplement the church's efforts. Its impelling truth is the fundamental fact of four sides to every life, the physical, the intellectual, the social, and the spiritual—hence our homes and restaurants, our gymnasiums and out-of-door recreations, our classes and lectures and practical talks, our socials and club meetings, our devotional services and Bible and mission study classes, and our foreign clubs which keep up this same work in mission lands. Trained women called secretaries are employed to carry on this work. These women are the connecting link between the membership and those who serve on committees or on a board of directors. Two hundred and twenty-two cities in the United States and Canada have this organization. Our student department has the religious and social features carried out by the girls themselves in all universities and colleges and important normal schools. This is a world movement, and is a part of the lift of every nation.

Figures count for very little in telling of real value. Twenty thousand women in factories under association influence in 450 institutions, 35,000 in educational classes, 300,000 finding their social life under its auspices, 75,000 accommodated in boarding houses 100 employment bureaus, 19,000 young women in Bible study, a full 100,000 served through the agency of the travelers' aid, and a total of 835 associations with 216,000 members—all this gives but little conception of the results of the investment of time, money and effort. It is, after all, the atmosphere of influence, the fact of the

existence of these institutions as working forces, that is counting most among women of the United States.

It has been decided that the form of organization to be used in the country shall be known as "the country association" and that all towns with a population less than 12,000, unless they be mill villages or towns where large industrial plants are located, shall be organized on the county plan. To its membership all women and girls residing in the county are eligible. A model constitution is adopted; a board of directors representing all parts of the county is elected and the regular fourfold work of the association is inaugurated through the establishment of branches. These branches have classes in physical work, most simple and often without apparatus; classes in domestic science and art, held in some woman's kitchen and dining room; Bible classes and life talks, socials and lectures. Generally the branches meet in the homes of the members, in the church or school or public library, but there is a movement toward opening rooms where the farmers' wives and daughters and the town women may have a central meeting place and where the work of the organization may be more efficiently carried on.

A girl member of one of these branches made in her annual report last year these statements: "Eureka has 75 members. One part of the work is the girls' club, which has two small rooms cosily furnished. The rent is donated by the owner of the building. When we have a social we cannot all get in. We have a Bible study class and a class in the study of home missions, both taught by college association girls. Among our good times have been a taffy pull and an indoor athletic meet. Last winter we had a 10 weeks' course of gymnasium work under the Peoria city association physical director. She came over weekly and had 30 pupils. We used the college gymnasium, and gave an exhibition at the end of the term that showed what girls could do. The association is more than a name in

Eureka, and is a fine thing for break-through the help of the extension department of the state university. Two ing up cliques.”

The country secretary is absolutely essential for the permanence and efficiency of the work. This office requires the finest type of women with marked powers of leadership and a big-hearted consecration that enables her to find no girl dull or uninteresting, but discovers in each one ability and talent. She should be country born, college bred, and city experienced, and she must be able to adapt the principles of the association to the widely diversified individual life of the members in the county over which she presides.

#### Six County Associations

We now have six county associations with a secretarial staff of eight. They are Woodford and Lake counties in Illinois; Goodhue and Mower counties, Minnesota; Lakewood and Ocean counties in New Jersey, and Chatauqua county, New York. These have a total membership of 3,000. Two territorial committees have a traveling secretary giving full time to this work; two others and one state secretary combine county work with city work. Creone county, Ohio, is now being organized. Three of these county associations named were organized only in June. Lake county, Illinois, has two branches. During the summer a physical director held classes and clubs not only in physical work but in other branches and sewing, with an enrollment of about 200. The membership of Lake county is 428. Goodhue county, Minnesota, was organized in one branch with a membership of 340. New branches will be opened as soon as possible. The Chautauqua, New York, association, has 562 members. The old city association of Westfield became a part of this organization, and there are five other branches. The Woodford county association had a tent at the summer Chautauqua, which was in constant use. On association day over 100 members from all over the country had a picnic and supper together at the tent.

Preparations are being made for a movable school of domestic science

department of the state university. Two of their women are to give a week's course of lectures and demonstration and the association is to be responsible for the local expenses. Woodford county is also considering extension work by organizing one or more branches in accessible towns of an adjoining county.

The corner-stone of the building for the Lakewood county association was laid the last of July. This is the first county building to be erected, and was made possible by the gift of \$10,000 from the brother of the president. The lot was also a gift. Two of our smaller city associations, Elgin, Illinois, and Iola, Kansas, are doing club-work in nearby towns, really making the work in rural communities the extension work of their city associations. A monthly paper called Rural Manhood, published by the Young Men's Christian association county work department is to devote the November issue to women's work, and our publication department has been invited to prepare this number. It will afford much information to those caring to look up the matter. We believe that this willingness on the part of the Young Men's Christian association to recognize the necessity for women's work where their work is organized, will do much to educate the public opinion in our favor, and also to pave the way for actual co-operation.

#### Women Weak in Team Work

In promoting these definite organizations there are certain conditions and questions which require us to move slowly. These are doubtless shared by all movements working in rural communities and are no greater than we find in other lines of our work. Sociologists tell us that the instinct for co-operation for team work is much weaker in women than in men; it is weaker in country women than among city folk, because of the strong individualism in rural communities and the lack of experience in acting together. This one difficulty is easily noticeable in our work, for ours is es-

entially a number of women associated together. A writer sets forth another difficulty in social life in the following paragraph:

"Who has not seen the young girls fretting because they are not trusted to do things? 'I could do that'. 'What's the use of our going? The mothers will do it all anyway. They say we will do it some day. How will we ever learn if they never let us try?' This unconscious dominance of the older woman, the impulse to do everything herself, rather than trust it to a flighty, irresponsible girl, is strongly characteristic of country life, and stands squarely in the way of development of our girls into alert, achieving womanhood. We are so sure of the wisdom of 50 and the foolishness of 15; and we understand so little the right of 15 to properly directed responsibility, the chance to carry loads, to be trusted up to her growing measure, the right to fail sometimes, that she may learn her limitations and her need of help. In sharp contrast to this attitude is the feeling that young people must be left to themselves in those activities which are recognized as peculiarly their own—their parties, dances, picnics. There may be criticism, but no co-operation. Yet nowhere is sympathetic leadership more neglected or more welcome."

A high school teacher recently told me that the parents in her small town seemed to leave the social and recreative life of the girls and boys entirely to the already busy teachers.

#### Church Co-Operation Needed

Another problem is proper co-operation with the church, which means too often the churches, plural in number and with sharply drawn lines. We can not exist except side by side with the church as a helpful part of her life. Most pastors believe in and admire our movement as a whole, but few fear its application to their own parishes because it means another organization where there are already too many. The association leaders are most anxious to do only the helpful thing. In cities and student centers the association has been proved to be a uniting

force, working equally for all denominations and bringing groups together on a common ground for mutual understanding, and we believe it will do the same for the country church. Association officers must be women of the churches, it is true, but only by that means could there be certain working into the hands of the church, and many a woman has become twice as valuable to her own church because of this experience.

Perhaps this very difficulty constitutes a need for the co-ordinating agency which we seek to be. One girl writes: "Because there are so many churches, the young people are divided into very small groups, so small that it is discouraging to try to do things. There are not very many girls in town and they do not know each other. I think it would be fine if we could have a society where all the girls of the town could get together."

A pastor evidently shares this opinion, for he says, "Our churches in the small towns are not financially able to secure equipment such as the institutional church in the city is provided with, yet we feel keenly that it is not enough simply to hold our young people for two hours on Sunday. There should be a point of contact through the week. They have social needs that your association can supply. You can help us and I want to see your work begun in the counties as well as the work of the young men."

This principle of co-operation must extend also to other organizations. The Young Women's Christian association must work with and for the school and the grange, and be in every sense a federating influence.

A fourth question is that of financial support. The very spirit of the association requires that it belong to the community and be not financed from without, but money is required for a secretary's salary, for rest rooms and for social occasions. Other organizations are weak largely because of inadequate or intermittent supervision. A woman who is big enough to do this

thing must have a salary in keeping with her training and experience. A \$900 woman is none too able and the country has a right to her. The town in which many retired farmers or land owners live has a real financial obligation to the region supporting it. Dr. A. E. Holt of Manhattan, Kansas, has pointed out that the town has much the same obligation to the surrounding country as the residence part of a city has to its industrial sections.

But there are many encouraging features. The life of the country girl is, in many respects, wholesome, free, capable and happy because full of interests. Country life knows few social distinctions. Practically all follow the same vocation, have the same interests, largely the same opportunities and limitations. Neighborliness is still the dominant instinct of farm social life. The country girl who may have lived half a mile from any neighbor, first sharply realizes the meaning of loneliness, when she leaves the sheltering love and hearty personal interest, not only of her own home, but of a whole countryside, for the thronging life of a great city.

#### Benefits for the Country Girl

Aside from what we are doing in definite county organizations our movement offers many indirect benefits to the country girl. A large proportion of the students in our colleges and normal schools and state universities are from rural communities. These are being trained in the student association and should be valuable church members and women of social resources. Many return to their homes or become teachers in rural communities and more will do so as we increasingly present the opportunities for a larger service there. Let me make a plea that these girls be used. They long to give to their friends what they have so richly enjoyed themselves, but too often their well-meaning efforts are resented by the more settled leaders who naturally do not wish to be improved by a girl whom they have seen grow up. It is case of a prophet in his own country. Perhaps, through sheer discouragement,

she settles back to the general level or leaves for another place where she is accepted for what she is worth. Why was she sent to college if not to gain new ideas?

The girls now in college are carrying out the "Eight Week club" plan for vacation work at home. They prepare for this during the spring term, and interest a group of their home friends to meet for eight weeks during the summer. The program includes Bible study, simple gymnasium exercises, the social hour, and practical talks on domestic science or home decoration, nursing, health and hygiene, travel, and nature study. The Oberlin Country club last spring not only studied, but practiced the presenting of botany stories, astronomy stories, plans for a church supper, out-of-door games suitable for a Sunday school picnic, home nursing, Bible stories and raffia basket making.

The country high school, largely serving the rural community, is another center for the student organization. In the state of Kansas alone there are 12 such having the association.

#### The Needed Helping Hand

Our city work contributes its service. There is the travelers' aid secretary at the station, to meet the country and the town girl who writes to her, or to watch for the one who does not suspect that she needs to be met. There is the association home, or the approved boarding house list for the girl alone, and the employment bureau for the one who seeks safe work. It is the country girl who falls an easy prey to the dangers of a city life where people seem never to be lacking to take advantage of her homesickness and trustful spirit. There is imperative need that in every railroad station and postoffice in the land there should be a warning to girls traveling, a warning of their dangers and advice as to travelers' aid help. In California the state federation of women's clubs voted to co-operate with the association by presenting the need of the girl away from home and in spreading the knowledge of our as-

sociation city work in every small town in that state. A president of a city Young Women's Christian Association wrote to one of our secretaries, "From the point of view of the worker in the city association the county work is valuable to us because it will train the country girl for city life. She must be fortified against the dangers and temptations of the city and well grounded in Christian principles before she comes. Through the country association she will learn about the city association and kindred agencies, so that she may seek them out immediately upon her arrival." The city institutions all testify that half of their problem would be solved if the country social problem was solved. Yet they for years have drawn the strongest and best from the country, those who might go to the city only for a visit, if there were a sufficiently large scope for their energies at home.

I believe that we are entering upon a time when our traveling secretaries in all departments may give much to the girl and the rural community life through brief visits to places having no organization. They can give inspiration and the benefit of experience to their local activities, can help churches in special meetings and social efforts, and can help link the community to many movements. In fruit-packing and hop-picking sections there is need for temporary work during the season.

Some representatives of a great woman's movement in Chicago recently went through the state in automobiles to enlist all Illinois women in their cause. They found the farmers' wives most responsive to the need of underpaid city girls and the women and children who needed fresh air. The slogan of these agitators was "bread for all and roses, too." Bread, which is home, shelter and security; and the roses of life, music, education, nature, and books, and social and spiritual fellowship, should be the heritage of every child born in the United States. Do we not as Christian women wish

all women, those in the city and those in the country, to have these rights of life? The girl on the farm usually has plenty of bread, but we wish for her more of the roses and we know of no one more deserving of the flowers than she of the community which gives the whole nation its bread.

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### CHURCH FOR WORKING FARMER

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By Rev. Warren H. Wilson, New York City

In the readjustment of country life to the new husbandry, many county churches are being eliminated, and a new type of church is appearing in the country. In order to understand this new kind of church, let us look at the causes which are reshaping the country community. The first of them is the machine, which does the work of three farm hands out of every four employed before it came on the land. It is educating the farm hand, and the farmer's son, and making them proficient in new mechanical skill. The second is scientific agriculture, which is in the way of making the farmer a better educated man than any of his neighbors, except perhaps the physician. The third cause is the tenant farmer, or "renter." He is not expected on the farm, but he has come, and already four farms out of every 10 throughout the country are tilled by renters who have only a one-year lease on the land.

The effect of these three forces in the country is to lift the level of intelligence and of practical skill, to decrease the numbers of people on the farms, to intensify the struggle for land, which has now passed wholly into the hands of owners, and is no longer to be had for the asking. Country life means hard work. It makes farmers serious people, struggling for success and anxious about survival, with too little time for adequate enjoyment of the life they are living.

The churches in the country show this strain, under which the people on the farms are living. In every one

of the states as far west as the Missouri river, many country churches have been abandoned. They were left stranded by the passing of their people, and the general shrinkage of the population. Three farm hands out of four are now machinery, and these gang plows and twine binders do not go to church, nor do they expect to go to Heaven. So that the weaker churches are going to the wall. We have statistics, based on accurate surveys in the country, which indicate that in Illinois, in the past 20 years, over 1,700 country churches have been abandoned, and in Missouri over 550 have been closed for good.

#### The Religion of Common Wants

With this perishing of the unfit, there has been a new type of church evolved, about which I want to speak. This church is teaching the religion of the common human wants. The old Psalm says, "The Lord is my Shepherd; I shall not want." That is, the supply of man's wants is God's care. These wants are supplied through productive labor. The food for the world is raised by the farmer, from the land. It is the work of God that the people of this whole country be fed, that prices be reasonably low, and that wages and the profits of the farmer be reasonably high. This is the initial care of the Almighty. It means that the efficient country church will be the one whose farmers are good farmers.

Prof. Carver states this well in his new book, "The church which realizes that its spirituality must meet the practical test of productivity; that its members must be made better farmers and better citizens generally by reason of their spirituality; that the more religious they are the better crops they will grow, the better stock they will keep, and the better neighbors they will be, is the church which will deserve to succeed and in the end will succeed."

We have a hopeful number of such churches in the country. Some of them have always practiced this principle of the union of the economic and the religious. They are mainly the churches of European stocks on Am-

erican soil, as the Pennsylvania "Dutch" and the German Lutherans, and the Scotch-Irish and Irish farmers. I am told that the Mormons belong in this class, but I have not yet had opportunity to study them. All these classes of farmers, however, farm by their religion, and pray, first of all, prayers that they may succeed as farmers.

#### Good Farmers Are God's Hired Men

But we have churches in Indiana, in the most mature districts of American farming, where the farmers' institute is carried on by the church. We have churches in New York and Maryland, in which the farmers' club, allied closely with the church, acts as a local forum for the discussion of better farming, and brings into the community the lecturers on scientific agriculture from the universities, for the systematic development of the local husbandry. These churches, and all like them—of all denominations,—are growing! They have a right to grow, the only divine right, for the farmer who produces more and better raw material with larger profit to himself, is God's hired man. He is the true Christian.

Secondly, we have, in all denominations, churches in the open country, which are teaching a new morality, through the deliberate use of recreation, supervised and promoted by the church. These churches are centers for the life of the community. They minister to the common needs of their people. Greatest of needs in the country is relief from the unremitting toil on the farm, with some play-spells, at the right times and for the right purposes.

Now the country people are the best people we have, in the old fashioned morality. They do not steal, and they commit adultery less often, in most of the states, than others do. But their morality is static. It has no go to it. There is no future for it. It looks only to the past. It does not make them more productive or more influential in the nation. It makes them personally good, but not socially powerful. The virtues which are taught in

organized play are dynamic. They are fertile in co-operative righteousness. They teach teamwork and obedience, the lessons which, above all others, farmers need to learn. They train men in subordination to one another for common ends, and in self-sacrifice for the gaining of public welfare.

These churches cultivate the social life by common assemblies, for all sorts of purposes, musical, dramatic, athletic and practical. Every meeting of farmers is a "frolic" whether it be for the making of a side-path along the highway or for presenting a home talent play on the stage of the church basement dining-room. The results of this kind of church work are good, and these churches are increasing in numbers in all denominations. They are suffering no loss of spirituality; rather they are gaining in a finer kind of religious feeling, the feeling of brotherhood, the cordiality of neighborliness and the aspiration after common good things here and hereafter.

#### Church Unity Will Survive

Thirdly, the churches which are surviving are teaching a doctrine of unity. Now the most of people are accustomed to find their doctrines divisive. Denominationalism has grown out of doctrines. Men have tended to believe those things in which they differ; not those things in which they agree. So that in this section of the country I have found religion to have two forms of decay, denominationalism and philistinism. Those within the churches have their thoughts on their differences from one another, and those without are making a religion of their superiority to church people. Both of these are of the same source, a small localism of mind, that sees the importance of mere aversions, and creates virtue in opposition. The needed religion is one of brotherhood among all good people, in service of the community. This doctrine is coming in our country churches. The trouble of overchurching is less due to the people than to the preachers, and less to the preachers than to the higher officials. With the growth of

a co-operative spirit, it will pass away; but it will have to be put out of the way by the farmers themselves.

I wish I had time to tell the story of my own church to the country, which has for 17 years united a whole community, and received into its membership, in its first years, the members and adherents of 11 denominations. There are denominational churches, however, that are doing this as well, and ministering to a whole country-side. The important thing is that good people recognize that, in the country community, where everyone must know everyone else, and neighborliness is as the very breath of social life, there cannot be religious divisions without the Christian religion being condemned. The best people will know better than that, for they aspire to unity, co-operation and common betterment. The churches will prosper, which express this unity, in the service of the whole community. This service will be based on the emphasis upon the central doctrines of Christian faith.

These three are the marks of the modern country church. It will have a religion for the worker. It will plead for the farmer's wife, who is an unpaid worker in most homes, and whose desire for a square deal leads her to long for life in the towns. It will pay a living wage to the minister, and expect him to earn it by living and working in the country, not in the towns away from the farmers, to whom he preaches. It will respect the farmer's son and daughter, with a part of the income.

Henry Wallace says that the profit of farming in Iowa is created by the labor of children on the farms. If this is so, the children ought to have part of that profit. One of the great reasons why they leave the farm for the city is that they "may have their own money."

This new spirit will syndicate the church property in the country, and make it possible for the in-coming denomination to take over the buildings of the outgoers, as population shifts, without economic waste. And these

new churches will get under the farmer's great task with him, and help him, with all the dynamic power of religion, to feed this great people, and to enable the American worker on wages, forever to eat white bread, and wear wool, as peasants and serfs cannot do.

Mrs. Kerr: Do you find the farm owner or the farm tenant the best support of the church?

Dr. Wilson: The farm tenant.

Mrs. Kerr: You spoke of the chasm between the farm owner and the farm tenant; have you anything to offer to improve this condition?

Dr. Wilson: Improve the country school and the farmer will stay in the country and rents will go up and the tenant will have a hard time getting in.

Mrs. Brooks: How will country communities that cannot pay \$1,400 a year have the right sort of minister?

Dr. Wilson: Club together and have the same minister for a number of churches.

The President: Before going on with our program this morning I wish to deliver a message from Miss Snow, who is probably better equipped for the teaching of household economics than any other woman in America. She came here, paying her own expenses, as all others did, and, on her way to train when leaving today, she said, "You owe me something, and, I haven't the slightest idea how you are going to repay it."

Of course, I was very much surprised. I asked what it was. She replied, "I think you owe me a degree for the amount I have learned in the past three days. I haven't paid tuition, either."

Miss Jennie Buell of Ann Arbor, Michigan, was the next speaker.

#### WHAT GRANGES HAVE DONE FOR FARM WOMEN

By Miss Jennie Buell, Lecturer, Michigan State Grange, Ann Arbor, Michigan

It is the frank claim of those who belong to them and the common ob-

servation of outsiders, that standards of thought, of talk, of living, and of social activity among rural women have been lifted to a higher plane by the grange and similar organizations.

When, 45 years ago, Oliver H. Kelly of Minnesota and his neice, Miss Carrie A. Hall, together planned the details of a society expressly for farm communities, they made it obligatory that a part of every charter list of members should be women. Moreover, these women and those who should join later were given the same privileges and advantages that were given to men. In other words, the farm home was taken as the pattern after which the larger life of the rural neighborhood was modeled. The last half century has amply justified the far seeing wisdom of this choice. To be sure the gain has not been all with the women; for reflex influences, coming from their presence in these organizations, has been markedly perceptible in the home, in the community, and upon farm men. It has been said that "when you educate a man you train an individual; but when you educate a woman, you train a family." Whether the founders of the grange reasoned from this convention or not we do not know, but certain it is that results in this instance have demonstrated its truthfulness.

#### Material Conditions Improve

The change that first strikes one's attention, in a community where the grange or kindred society has prospered for a number of years, is a difference in the physical conditions and equipment of the farms and homes themselves. Methods of handling the soil, farm machinery, quality of stock and poultry, varieties of fruit and garden produce—all these have undergone improvement and extension. More business system is shown. New ideas from the commercial and scientific world have evidently been imported and applied to practical and profitable ends. A noticeable feature is the number of well-seeded lawns that are mown and have upon them swings, or hammocks, or equipment for games. Searching further, one finds the read-

ing matter of this neighborhood has increased in quantity and has undergone changes for a higher grade. Moral requirements have in many instances been raised. Speech has been purged of roughness, vulgarisms and back-bitings. Religion is respected and practiced in larger measures. Thrift, on the one hand, betokens business awakening; while, on the other hand, are signs of neighborhood pride and enjoyment.

#### The Prison Bars are Broken

Even a cursory observation notes these things to be true, or fast becoming true, in a community where a live grange exists. The reason for this is because organizations that bring people together at frequent intervals afford occasions for members to express themselves to others. Friction of mind on mind is stimulating. The practice of songs, the writing and reading of papers, taking part in discussions, offering impromptu remarks, and the home preparation necessary to participate in such exercises, keep the currents of thought fresh. The woman in the grange is helped most of all by this for, otherwise, she is more hedged in and turned back upon her own resources. The prison bars of her own self-hood need to be broken down in order that she be released and enabled to do her best for her family and neighbors. And everything about the association helps her—the business and legislative features, as well as the social hour and program, each in its own way. Wherever tax laws are made to relieve farm lands of unjust burdens; or pure food laws to rid farm products of undue competition; or machinery to abolish manual labor; in short, wherever these material gains have been made, there woman's lot is easier, more livable. And these desirable ends, so far as they have been attained, stand almost wholly to the credit of farmers' organized efforts. The lack of conveniences and comforts on the farm is often not so much due to financial inability to procure them, as to the manner of getting at them and learning what to buy and how to install the new

machine, or water system, or other labor-saving device. The knowledge that we need and may have a thing must go before determination to procure it. Thus organization affords a great highway upon which a new world of concrete information gains access to the farmer's home. It is the progressive farmer's and housewife's practical clearing house for new ideas concerning their work and best interests.

May I clinch this statement with a few illustrations? I spent Sunday in a remote farm home a few days ago where the bread upon the family table was such as all good housekeepers dream of but few attain. In connection with it, the man of the house gave me a bit of inside history. He said, "A woman in our grange was assigned breadmaking as a topic upon the program at one of our meetings. During her talk she exhibited a bread mixer and demonstrated its economy and usefulness. There was no peace for me until my wife had one like it. I considered the money paid for it well invested."

A certain family had a good crop of apples last fall in a section of new country where fruit had received no special attention. They found apples to be a drug upon the local market and the outlook for their products was dubious. Riding home, the man of the family did some purposeful thinking. As a result, instead of hauling his fruit 14 miles through a deep sand road in sacks or wagon box, as his neighbors had done, he built some neat bushel crates into which the family carefully packed the apples, wrapping each in tissue paper. When he offered these for sale in the same market, he easily obtained four times as much per bushel as had previously been paid. I asked the man how he came to do it. "Why," he said, "I suppose I had read of it before, but when I saw apples put up that way at the state grange meeting, it impressed me to try the plan here."

Such instances might be multiplied indefinitely as the results of talks and demonstrations given at granges, farmers' clubs and institutes.

While improvement in material con-

ditions is most obvious to the casual observer, mental stimulus is really the source of this improvement. These organizations, which practically include the family with its entire range of work, interests and social life, are able to give to the intellectual lives of their members a tremendous impetus. They can do so only because of the regular feature of a program hour at every meeting. When such a feature is not prescribed, they are not farm organizations that meet the all-round needs of rural life.

Here again woman profits immeasurably, for, whenever bodily fatigue is lessened and the tension of getting a living is loosened, a woman's mind and spirit unfold, provide animating force such as neighborhood associations can furnish. Many women, having had early educational opportunities, are later so overwhelmed with material duties and crowding cares that they have grown mentally and spiritually "rusty." Other women, naturally as capable, have never had educational advantages beyond the most common schooling. One of the most beautiful effects of the grange, as I have seen it in thousands of instances, comes through its message to these women—"Arise, come forth!" To every woman who responds to the call it means newness of living, a revival of her earlier education and a forging ahead into fresh fields of acquisition and thought.

Once, in a discussion upon the advantages which the grange has brought to farm women, a woman said, "Fifty years ago women thought HE must think, say and do for the family, and she perhaps should only prod him up once in awhile. Association in organizations has fitted and led the woman to assume a fair part in the decisions of the family. It has discovered her mind to herself. Moreover, it has taught her to take in and love and work with those diametrically opposed to her in opinion."

Another woman said, "It has brought woman to realize that her neighbors are human beings with dif-

ficulties, aspirations, varied successes and failures like themselves," while a man offered this comment:—"It has been worth all the effort the organization has ever cost this neighborhood to make my wife and me acquainted with our nearest neighbors."

Still another observed, "It has increased woman's ability to grasp public questions and discuss them. The time is coming when they must everywhere take an active part in affairs at large and the grange is fitting women for this active part."

One woman, who lives in a house beside the road, said: "In my early married life we took our enjoyment at the season of the annual fair in watching the country people pass. Country lovers walked by swinging hands, eating candy from the same stick, or otherwise so absorbed in each other's charms as to be totally oblivious of the amusement they were creating. Now, as we sit on our porch and watch the passers-by we cannot tell the country from the city folks."

Through the programs in these organizations a greater familiarity with literature, with books and miscellaneous papers, is being engendered. Through the agitation and study of rural school problems, farm women are coming more and more to understand and accept their own just relations to its solution. Committees from these societies visit the schools and report upon what they find, friendliness with the teachers is encouraged; courses of study are being examined and defects pointed out; examples of progressive rural school work are becoming familiar; and, as a natural consequence of all this, women are being put upon the school boards and are taking advantage of the school franchise in those sections of the country where it is granted them.

#### Social and Spiritual Benefits

Whatever may be said for the material and mental benefits that have accrued to farm women through organizations, these have been far excelled by their social, spiritual and

esthetic blessings. Looking into the faces of a body of farm women who have come together for the first time, one cannot but be struck by the lack of expression on their faces, the almost rigidity of their features. Pent up within themselves, hedged in by a deep-rooted diffidence, it requires considerable social sunshine to thaw them out. This is simply and chiefly the result of habitual repression, for at heart a more sincere, appreciative, sensitive nature does not exist than is locked up within the average farm woman. Precious metals lie deep and must be mined for with care and patience. I do not consider as far-fetched an instance which I heard of lately: A friend said that her aunt some 40 years ago, was one of the women who had led a repressed life, her family knew her as a model house-keeper and considered her a good butter-maker, prosaic and sensible. When she grew old and childish her friends were astonished at the scraps of poetry and hymns and beautiful thought which she recited. It was a revelation to them that this woman had the least bit of sentiment in her makeup. Too late they found that her mind had been steeped in beauty all these years.

Only last week an old, old colored woman living near my home suffered a stroke of paralysis and, after a few days, died. We had known her as a stoic in countenance and demeanor yet, after being stricken unto death, her only request was that her children should sing to her. Such instances as these go far to persuade one that, hidden deep in the soul of every woman, lies seeds of beauty and affection.

The hard, material, apparent side of many a country woman's life has often been harshly set forth in blunt phrase or doubtful doggerel. To my mind the more accurate, though often unworded, wish of the farm woman is far more truly expressed in the following lines by Mary A. Townsend:

"I am tired!—so tired of rigid duty,  
So tired of all my tired hands find to do;  
I yearn, I faint, for some of life's free  
beauty—

Its loose beads with no straight string  
running through.  
Aye, laugh, if laugh you will, at my  
crude speech,  
But women sometimes die of such a  
greed—  
Die for the small joys held beyond their  
reach,  
And the assurance they have all they  
need."

#### That Closer Human Touch

Over against the yearnings for an idle hour expressed in this poem, let me place the testimonies of a few women who have been under the influence of farm organizations for a number of years. These will, I hope, go far to prove how these societies become vital, constructive force in the lives of farm women. All of these women from whom I quote live in the open country and are leading actual farm women's lives. Each was asked what benefits she had experienced or observed as resulting from such associations. One replied: "It has given me better home training and taught me to live with as well as for my children. It gives a closer touch with humanity. Little mole hills, that become mountains if one knows only her own daily round of vexations and cares, assume their due proportion when compared with the lives and experiences of others. It gives me a sense of strength and unity and a greater respect for my fellow craftsman."

Another, a little Scotch woman whom the grange found and placed in a widened world of information and activity: "I have come into contact with the best people. These organizations have developed latent talent and helped me to know myself. I feel so keenly the need of the mental, social and moral uplift which they can give, and I am so anxious to see every farm wife and daughter in one or all of them, that I would count the remainder of my life well spent if I might materially assist in this happy consumption." In a personal note she adds, "Shall I tell you we have a five-passenger auto and we intend to take more outings—another wise thing the grange has taught us,—to run away from our labors a wee while."

The mother of nine children in a little log house, 37 miles from a railroad, writes: "I find myself benefited in every way. Before I became a member of the grange I was always at home and had no thought beyond that small home circle. Now I like to get out and mingle with the outside and brush intellects with others whom I meet and consequently feel brighter and better qualified to fill my duties at home."

An ex-teacher, now a wife and mother, writes: "In our community, where there was no other organization, the grange has been the means of interesting farm women in the problems relating to the welfare of our neighborhood; clubs have been formed for helpfulness and a desire created for study and good reading. Personally, the grange has taught me to love my home better, the farm better, my neighbors better, to understand more fully the problems of country life, and to economize my time so that a portion can be given to outside things."

Another, who has developed rare executive and leadership abilities, under the stimulus of associated effort, says of its influence. "Its greatest benefit is the opportunity for self-improvement. To me it was an open door. The educational feature is paramount to all others."

#### Partners in the Business

A few weeks ago a fine two-story brick hall was dedicated by a grange having 250 members in a sparsely settled section of a "new country." The social conditions are almost unbelievable, due to a large foreign element. Prejudice, jealousy and suspicion once ran riot and their progeny still struggle to live. At the opening reception in the hall people gathered from towns and country side for many miles around. A leading physician, who lives in the town where this grange is located, and who was a guest of the occasion, looked over the orderly, well-dressed, happy assemblage and commented to a lady with whom he was chatting, "If you could

see, as I can see, the difference in the women since the grange has been here, you would think it worth while to have organized it—just to get the women off the farms and bring them together." A similar testimony was once given me by a woman living in a very isolated country neighborhood, who wrote: "The greatest need of farm women before these organizations came to them was to get them together for their mutual benefit. Formerly they were their husbands' hired help without any pay; now they are partners, equal in the business."

One woman who had had a good education in girlhood, when married, discovered herself drifting in the stream of conventional hard farm work, with neither reading club nor social life. She revived her ideals, joined organizations of farm men and women and allowed her life to expand generously under their impetus and suggestions. She was richly blessed in this course and the influence of her activities reached thousands of other farm women. She assisted in directing efforts of farm organizations in behalf of children in farm homes; of providing instruction for country mothers in their relations as wives and mothers; of establishing a co-operation with city women's clubs which has resulted in providing rest rooms in court houses for farm women and the giving of fresh-air outings in country homes to hundreds of poor city women and children. Scores of other capable, devoted farm women are now carrying on and developing these lines of work. Almost the last written words of this farm woman were these: "I love everybody so much, I have wanted to help people to be kinder, truer, sweeter; and there is so much to do."

Her's was the tribute of one of the earliest women enlisted in the now nation-wide movement for the banding together of farm women. Besides it let me place the impulsive postscript in a letter which came to my desk last week from a young woman, a farmers' daughter, who is now doing splendid service as a leader in mental

and social exercises of a large county farm organization. She writes: "There is so much we want to read and so many things to think about and do. It is good to live, to care, to try—even if we can't accomplish all we would like."

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## Delegates from 28 States

Mrs. John A. Widtsoe of Utah, chairman of the committee on credentials, reported that there were 222 delegates present from 28 states and nations and provinces. The report was adopted.

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## Resolutions Adopted

Miss Jennie Buell of Michigan, chairman of the committee on resolutions, presented the following report, which was adopted as read:

Whereas: The First International Congress of Farm Women, auxiliary to the International Dry-Farming Congress, has been organized to arrest and direct the attention of the world to home life on the farm; and

Whereas: It has for its purpose the development and uplift of that life, as far as possible in connection with every other progressive movement along educational, social, ethical, economic and religious lines:

Therefore: (1) Be it resolved that this Congress endorses every effort to further and foster its work by making public through all available avenues of press and publicity work, every advance step in the farm woman's life; and

Therefore: (2) Be it resolved, that this Congress heartily endorses the movement for the establishment of a bureau of home economics in the United States Department of Agriculture, its work to be devoted to betterment of the conditions in the home; and

Therefore: (3) Be it resolved that this Congress endorses the vocational educational bill now pending in the Congress of the United States whereby the states and nation may

combine in a comprehensive plan of effective vocational training in secondary schools, through which the rural elementary school may be benefited; and

Therefore: (4) Be it resolved, that this Congress endorses and heartily cooperates with every advisable effort to organize and promote boys and girls' clubs, as potent factors in influencing our young people and preparing them for efficiently filling their sphere in rural life; and

Therefore: (5) Be it resolved, that this Congress approves and lends its aid to every rational movement toward the organization of rural women, either through social centers, mothers' clubs, auxiliaries to farmers' institutes, farmers' clubs, granges or womens' clubs; and

Therefore: (6) Be it resolved, that the thanks of this Congress be extended to the Presbyterian church of Colorado Springs, for the use of its building; to the citizens of Colorado Springs, for their courtesy, cordial welcome and warm hospitality; to Mrs. Eleanor L. Burns, who caught the vision of helping farm women through this medium; to Mrs. William F. Slocum and the local board, who have worked untiringly and efficiently to make the Congress a success; to the able speakers who have come here at their own ex-

penise and have given us their excellent lectures and papers so full of practical plans and to the Inter-

national Dry-Farming Congress for its financial support and co-operation.

## Officers for 1912

The report of the nominating committee, presented by Mrs. Belle v. D. Harbert of Manzanola, Colorado, recommended the election of the following officers for 1912:

For president, Mrs. Byrtha L. Stavert, editor of Country Life in Canada, Winnipeg, Manitoba, Canada.

For first vice-president, Miss Irma E. Mathews, superintendent of women's institutes, Oklahoma Agricultural college, Oklahoma City, Oklahoma.

For second vice-president, Mrs. Clark W. Kelly, Devil's Lake, North Dakota.

For third vice-president, Mrs. John A. Widtsoe, Logan, Utah.

For secretary-treasurer, Mrs. Eleanor L. Burns, Lethbridge, Alberta.

For members of the executive committee:

Mrs. J. E. Mondell, Tucumcari, New Mexico.

Miss Mary L. Bull, Minneapolis, Minnesota.

Mrs. Alice Blackburn, Sayre, Oklahoma.

Mrs. William Flannery, Belgrade, Montana.

Mrs. J. H. Sheppard, Fargo, North Dakota.

Mrs. Charles A. Lory, Fort Collins, Colorado.

Miss E. Cora Hind, Winnipeg, Manitoba.

Mrs. Marie T. Harvey, Kirksville, Missouri.

Mrs. C. C. Stearns, Rosalia, Kansas.

Mrs. Margaret Swift, Boise, Idaho.

Mrs. J. W. Carpenter, Cheyenne, Wyoming.

Miss Jennie Buell, Ann Arbor, Michigan.

Mrs. H. P. Stevens, Maxwell, Nebraska.

Mrs. J. G. Mosier, Urbana, Illinois.

Mrs. L. A. Merrill, Salt Lake City, Utah.

Mrs. Edwin A. Smith, Spokane, Washington.

Mrs. A. M. Kepper, Winfield, Iowa.

Mrs. H. W. Jeffers, Plainsboro, New Jersey.

Mrs. W. F. Gardener, Sturgis, South Dakota.

The report was adopted as read and the officers as above named were declared elected.

## Farm Women's Press Association

Miss Irma E. Mathews of Oklahoma City, who is associate editor of the Oklahoma Farm Journal, reported that the farm newspaper women in attendance at the Congress had formed an organization known as the International Farm Women's Press association, with the following officers:

President, Miss Irma E. Mathews, Oklahoma City, Oklahoma.

First vice-president, Mrs. Byrtha L.

Stavert, editor Country Life in Canada, Winnipeg, Manitoba.

Second vice-president, Miss Adeline O. Goessling, associate editor Farm and Home, Springfield, Massachusetts.

Secretary-Treasurer, Mrs. Mabel Bates Williams, editor Home Cheer, and Grand Traverse (Michigan) Herald, 1640 South Emerson Street, Denver, Colorado.

Executive board: Dr. Ella S. Webb, St. Paul, Minnesota; Mrs. Eleanor L. Burns, Lethbridge, Alberta; Miss Jennie Buell, Ann Arbor, Michigan, and Miss Mary A. Whedon, St. Paul, Minnesota.

found eligible the name shall be voted upon by the association.

#### ARTICLE IV.—OFFICERS

The officers of the association shall be a president, two vice-presidents, a secretary-treasurer and four directors, who shall be elected by ballot for one year at the annual meeting, and who together shall constitute the executive board.

#### ARTICLE V.—PUBLICITY BUREAU

There shall be a publicity bureau, which shall come in touch with news concerning farm-home life and women in actual agricultural pursuits, through every available source, shall condense and prepare this matter for re-distribution to all members of the association and to as large a list of daily and weekly papers throughout the world as will consent to accept our prepared press sheets and put the bureau on the exchange lists, that its work may be checked and economized.

#### ARTICLE VI.—MEETINGS AND QUORUMS

Section 1. The association shall meet annually at the time and place of meeting of the International Congress of Farm Women.

Section 2. Eight shall constitute a quorum, and a majority vote at any regular meeting shall elect. Three shall constitute a quorum at any meeting of the executive board.

Section 3. The executive board shall meet once a year, immediately preceding the annual meeting, at the place where said annual meeting is to be held.

#### ARTICLE VII.—AMENDMENTS

This constitution may be amended by a two-thirds vote at any regular meeting, provided said amendments have been submitted at the annual meeting next preceding, or have been submitted in writing by the secretary to all members at least two months before the annual meeting at which the vote is taken.

### CONSTITUTION ADOPTED

The committee on constitution reported as follows:

#### ARTICLE I.—NAME

This association shall be known as the International Farm Women's Press association.

#### ARTICLE II.—OBJECT

Its object shall be to bring into closer touch the women editors and writers on farm papers, for a common and harmonious uplift and the promotion of all farm-home life, subjects and interests.

#### ARTICLE III.—MEMBERSHIP

Section 1. The membership of this association shall consist of active, associate and honorary members.

Section 2. Any woman who is proprietor or manager, or connected in any regular editorial or reportorial way with any farm publication, shall be eligible to active membership.

Section 3. Any woman engaged in minor ways as correspondents and occasional contributors to farm publications and wishing to avail themselves of the benefits of the association, but not eligible to active membership, may become associate members and shall be entitled to all the privileges of the association except those of voting and holding office.

Section 4. Honorary members may be elected by the unanimous vote of the association.

Section 5. Applications for membership must be accompanied by credentials in writing, giving the necessary facts as to literary connections and experience. These credentials shall be investigated by the credential committee, who shall report upon the standing of said applicant, and if

The report was adopted as read and thereupon the International Congress of Farm Women adjourned sine die.

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