BOX 1 FOLDER 12 Stone Home Economics Exhibit

## The House Efficient

by Ethef K. Kiffeld, A.G., Ş.G.

> Prepared for the Mary Lowell Stone Home Economics Exhibit II



1903 Second Edition

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ETHEL F. FIFIELD.

THE dwelling-house has from time immemorial received much attention as the abode of the family, the primary sociological unit; it has also been regarded in the light of a work of art of more or less questionable merit; but perhaps in its common aspect, it is a specimen of the workmanship of masons, carpenters and other mechanics. The fact that one of its most important functions is that of a factory where certain habitual work is done has been almost wholly neglected. The woman who should regard herself as the manager of this factory, the superintendent of its work, concerns herself, in its planning, with the appearance of the exterior and the overcrowding of the interior rather than with questions of health and convenience, leaving to the architect problems which it is her special province to solve, while she causes him trouble and vexation of spirit by her ignorant assumption of knowledge on the subject of symmetry and proportion. In other words, in her anxiety to secure to her house a "Queen Anne front" she forgets entirely the "Mary Ann behind."

Now what are the questions that are hers to settle, those special subjects in which her knowledge should give her the right to dictate? Obviously they are those connected with the work which is done in her factory; in other words, the cooking, cleaning, and general service; and as in the case of the larger factory so in the smaller, its manager must realize that the quality and quantity of work depend absolutely upon the efficiency of the workers; and those conditions which will promote that efficiency must be her particular study.

In the first place, the structure in which they work and live, should be built of good material solidly put together, in order to make a secure shelter from the elements. Above all elements, protection is needed for security from fire, which, though it rarely comes, is like a suspended sword—a constant menace—all the more to be dreaded since the inmates sleep as well as work in

the house, and at night are helpless because unconscious of its presence. Even a wooden house, in spite of its material, can be made comparatively safe by blocking off the air-spaces in walls and floors between the timbers and so forcing the fire out into the room where it can be seen. The chimneys should be built by an expert who will construct for them a fireproof lining and surround them with every safeguard. If fire escapes are lacking, staircases can be made nearly or quite fireproof, while trunk lifts can be so protected as to be of great service. When once the house is built with proper attention given to these details, the house-manager may feel that those in her care are protected from all ordinary disturbances of the elements.

The next problem should be her perpetual study,—the securing and maintaining the health of her workers. She must, like the general of an army, first find what enemies she has to meet, and then consider how to work their defeat. These enemies are quite up to the times at fighting from concealment, and in addition have an unfair advantage in their small size. They are, in other words, bacteria, those living things, so tiny as to be invisible to the naked eye. Some there are, to be sure, which are helpful in the work of the house, but just now only those are to be considered which, finding conditions favorable, set up their growth in the house and bodies of the workers, and cause disease. The house-manager has two steps in her plan of campaign: first to make her factory impregnable, and second to make it impossible for the enemy to stay and grow if it should succeed in slipping past her defences.

How do bacteria get into a house, and how can she fortify it against them? They are likely to slip in by means of food and water which should have been looked after by inspectors and refused admittance if unfit for use. Again, they fly in with the dust from outdoors. In short, they are so crafty that they can scarcely be altogether kept out, but her efforts must be directed chiefly towards making her house so inhospitable as to discourage their stay. She knows—or she ought to know—that her enemies love best, damp, dark, or dirty places, which they seek as their base of operations. Since she cannot hunt out every individual with a microscope, she plans destruction for their fortresses and so for them too.

She starts with her cellar, which of all the house is the place most likely to be damp and dark and dirty. She sees to it that it is dry by having the soil properly drained around and beneath it, and by having walls and floor moisture-proof. She is a foolish woman if she chooses for her house a site where these precautions will not be sufficient. She plans to have no dark places for her enemy to seize upon by having the first floor far enough above ground to give room for large cellar windows, with panes of ribbed or prismatic glass, if needed, to turn the sun's rays into out-of-the-way corners. Then she wipes out the enemy that may have crept in with a thorough cleaning, and applies a coat of whitewash twice a year. After this she may well be justified in feeling that her cellar is unmolested and healthful.

In the rest of her house she pursues the same line of action; she guards against dampness by having walls and roof weathertight and the joints of her plumbing in good order. Darkness she puts to flight, in the daytime at least, (for, unlike Joshua, she has no influence on the movement of the sun,) by having plenty of windows of generous size and letting its rays stream in through every pane. In the house of a good manager you will never find shades that shade and are never rolled up, and draperies that drape and are never drawn aside. Her curtains hang in simple straight folds of some soft opaque cloth, running easily on a rod, and are pushed aside in the daytime. Dirt she disposes of thoroughly, never using a feather-duster to scatter broadcast her invisible foes. All wastes of the body and of food she hurries away in strict obedience to the laws of sanitation.

In this process she takes special pains to see that used-up air, which is only another kind of dirt, is expelled quickly and thoroughly, for she knows that if it stays in the house it will weaken, instead of strengthen, those who breathe it. Air which has lost part of its oxygen by the combustion in our bodies that ceases only at death,—by the fire, or the gas, rises above the cooler air of a room because of its greater heat and consequent lighter weight. Therefore the factory-manager knows that outlets for it must be provided at the top of her rooms. She either has her windows carried to the ceiling, that there may be no layer of bad air above them, leaving them open at the top, and well screened to keep out dust and flies; or she has transoms above them which

serve the same purpose; or sometimes she has openings made into ventilating flues in a chimney, provided such flues run beside one which is kept warm, lest the bad air refuse to rise. Over her gasburners she provides ventilating pipes leading to a drum in the ceiling and thence to the chimney. At the top of hall-ways, which often serve as ventilating flues for the adjacent rooms, she cuts openings for the escape of bad air. She shuts off the kitchen by doors and cross-draughts from the rest of the house, thereby leaving the family and the casual caller in happy ignorance of the different food-materials in process of preparation. Having by these means induced the bad air to leave her house she admits a plentiful supply of that which is fresh and good, taking special pains in winter, when dependent for air on her heatingsystem, to choose hot water or warm air to heat her house rather than steam, for this takes vitality from the air instead of giving a fresh supply. Thus removing all conditions which favor the growth of her enemies, she can continue her campaign along lines which will assure her complete victory, and in it all she is assured that she is promoting to the best of her ability the physical efficiency of her workers.

But there is still another important problem demanding attention, and that is the economy of work and the saving of workers. She must feel hopelessly behind the times when she thinks of the labor-saving machinery which is indispensable in any factory, while she has but a scanty supply of devices invented to help the house-worker. The division of labor which has made such a wonderful transformation in the industrial world has worked few changes in her home-factory, where cooking and laundry-work, that might with great saving be done elsewhere in special establishments, still go on under the home roof. She is to blame for the waste of muscle and nerve force which goes on every day because of her neglect of industrial improvements, but much more is she to blame for that waste of energy which might have been prevented by a well-planned house. She should see that convenient passageways are made between those parts of the house where close connection is a necessity and saves steps. She should economize breath and energy by having at least one broad landing on every stairway, and if there are turns she will insist on this, instead of steps of unequal width, and so avoid danger to

life and limb. Stairs will be low and wide enough for comfort, but not so low as to tempt taking two at a stride. For the carriage of trunks and other heavy materials she will insist upon a lift, which will save plastering and woodwork as well as muscle. She will see that the members of her family are provided with chairs of different heights to suit their individual needs, and will gladly introduce into her home all other devices for economy and comfort. She ought so to arrange the kitchen, the special workroom of the food department, as to make possible the preparation and service of food with the greatest saving of time and energy. Storeroom, sink, refrigerator, stove and tables should be placed in their proper relation, and tables, sink and stove made higher than is ordinarily the case in order to do away with needless backaches, while chairs and stools should be placed convenient to the worker.

Processes of cleaning, the house-manager can simplify by having woodwork of such form that it can be wiped off with ease; by using a fuel for her kitchen fire that leaves no refuse; by having for her food-materials, glass shelves and jars; and finally by insisting upon a kitchen floor which shall be a non-absorbent of water and grease, and free from cracks and crevices for the accumulation of dirt. Some of the newer materials have great merits. Lignolith, for instance, made up of cement and sawdust, can be spread in one continuous surface over floor, walls and ceiling, substituting for the angle and crack where walls and floor meet, a curved surface far easier to clean. Other cement compositions are easy to care for, as are also tiles, but with these hard materials special shoes should be provided for the feet of the workers. Rubber tiling, however, offers a surface which is more elastic, and would seem to be admirable for many reasons. In default of any of these materials, which are more or less expensive, a good hard pine floor or one covered with linoleum will serve excellently, provided its surface be protected with oil or shellac.

In short, there are many ways in which housework can be lightened. But the simplest way to save time and energy in cleaning is, to have as little as need be, to be kept clean, to live as the Japanese do who keep their precious jars and pictures put away, and have in sight only a few at a time. In other words,

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The manager of a large factory cares for the health of the men and women in his charge, largely for business reasons, for he knows that the healthier his workers, the more the work they will turn out, and the better its quality. But more vital by far is the obligation which rests on the wife and mother for the wellbeing of those for whom she is morally responsible. No man will be given a position who is unfamiliar with the processes of the work he is to oversee; but too often a woman going from her father's home to take charge of her husband's, steps from one parlor to the other, and obtains her only knowledge of the work of her household through the catechism of the "intelligence" office. Public opinion demands that the man shall have had experience before he has control, but as yet it has regarded the management of the home as so light a thing that a woman may assume it with no preliminary training for its responsibilities. One hope there is for the future: the educated women of today, who must have an inevitable influence in moulding the public opinion of tomorrow, are entering upon the calling of homemanager as one of the high professions. The most advanced management of factory and of hospital serves for a model to them rather than present methods in the home which are rapidly becoming obsolete. To the service of the home they are bringing as its rightful due the best knowledge of science and of art. They know that only as a woman dignifies labor, will labor dignify her.

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