SPECIAL ARTICLES ON WOMEN AND ELECTRICAL DEVELOPMENT.

The Woman Engineer
The Organ of the Women's Engineering Society (Incorporated 1920)

Vol. 11., No. 1. DECEMBER, 1924 Price 6d.

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THE WORKING OF STAINLESS STEEL.

The Woman Engineer is issued quarterly—price 6d.
News item on the setting up of the 'Women's Electrical Association' – as it was initially known.
The Development of Women’s Interest in the Domestic Uses of Electricity.

By MABEL L. MATTHEWS (Grad. I.E.E.)

Some years ago, in a very remote part of England, I knew an elderly lady who had been born and brought up in the beautiful and quiet dale. She was ultra-modern in her tastes, and did anyone enthuse on the “good old days” she was apt to reply that for her part she very much preferred the modern days. That living in so remote a district, old customs and manners lingered longest and her memory of the discomforts suffered was too acute for her to retain any glamour over olden times.

She would relate for instance, that in those days if there was a wet season and the grain was affected, the resultant loaf was sometimes “very nasty and bitter” but that “you had to eat it because you could not afford to throw the wheat away and it was often a very long time before you came to the end of it.”

For years they used only home-made candles, and if a sheep died all the fat must be removed and melted down, and all hands called to the task of candle dipping. A very hot and tiring business, though picturesque enough, with its busy group of besmoked workers, lit up by the larch wood firelight of the quaint and gloomy outhouse, each worker provided with a board and a supply of wicks, which had to be dipped and laid on the board in turn, and as they hardened, redipped, until the required thickness was obtained. The task from beginning to end sometimes providing two days of hard and unwholesome work.

The First Paraffin Lamp.

She remembered the first paraffin lamp in the district, “quite a small affair, holding about a gill of oil, and people came for miles round to see the ‘new light.’”

When lamps became general, they were considered to give a beautiful light, but there was, every morning, the trays full of lamps to be cleaned, trimmed and refilled—over an hour’s dirty, oily work. Then came her first experience of gas, which was a matter for great wonder in those days; but that was nothing to electric light, and she had travelled in the first coach to be lighted by “electricity.”

That when she thought of the days when one worked by a light evolved from dead mutton to candlestick, and snuffers, a woman nowadays seemed endowed a queen when she could suffice her home with radiant light by the mere touch of a button.

The good old days were tolerable for the rich, but wretched for the poor, who were thankful if they had firelight, let alone candle-light. She was glad that modern methods had brought us to the day when the one-time luxuries of the rich had become the necessities of the people, and she would like to see the day when electricity could be turned on in the home as freely and lavishly as we now turn on water.

Surely this is the meaning of civilization! That everything that makes for health, comfort, beauty and well-being should be the common possession of the people; so ordinary that every man can hardly conceive what life was like without it.

And if you look at the matter carefully, it is only by serving the people that any man or group of men has become rich or notable. No statue was ever erected to any man for any other reason than that he served his fellow-men, and by service to the community only can any man or group of men become rich and great.

The financial groups most successful to-day are those which are most efficiently serving the people—giving them what once were luxuries at economy prices. Take Lyons, of catering fame—the poorest student can obtain a satisfying meal for a few pence under conditions and surroundings which are gratifying to his self-respect; the most stinted housewife snatch to herself an hour of brightness, music, warmth and comfort over a three penny cup of tea!

The London General Omnibus Company with its wonderful fleet of luxurious omnibuses and its well-paid and well-cared-for armies of workers, meeting the demand for penny fares on a Rolls-Royce scale.

Of Gordon Selfridge! Of Henry Ford and F. W. Woolworth!!

These groups are wealthy through meeting the needs of the people generously, even luxuriously. Whether they set their own financial reward first or not, only they can say. Certain it is that they have vision.

Electricity—A Gift to Humanity.

The electrical engineer holds in his hands great gifts for humanity. If he keeps in mind that he holds a great trust, a talent that must not turned into ten talents—if he has vision in this matter, then indeed, will he find that the fields are already ripe to harvest; and we would suggest
to electrical engineers that they think often of the whole problem from the point of view of serving the people. We would remind them that for those who would prefer the comfort and cleanliness of doing things electrically it is largely a question of means. That electricity should be within the reach of all people of moderate means, for they are the people who need it most. That by the use of electricity woman's burden can be lightened and her labour lessened.

My own work is not in any way connected with the domestic use of electricity, but it is connected with electrical labour-saving devices for engineering purposes, and one is very much struck with the way in which a man will enquire whether there is any special tool or machine which will enable him to do a particular job in a less laborious or more speedy and efficient manner. He will send you drawings and be thoroughly interested in all suggestions. If he builds a small workshop or garage at home, he immediately looks round for a "little motor" to drive his lathe.

Perhaps it is this interest that encourages electrical engineers to cater so thoroughly for his industrial needs.

When I was haymaking once, during the war, an old farm hand came to me and said "Now, Mum, this is a job where you can work hard or you can work light. What you want to do is to work light." I've never forgotten that and I look round and see lots of women working hard where they might work "light" with equally effective results, and is where electricity can help; and not only in regard to work, but la health, hygiene, and greater comfort in the home.

Most women hardly realize what a boon electricity can be to them. There are many wonderful electrical aids to-day, but we are convinced that there would be many more if the housewife would arouse herself to a real desire and enthusiasm for them.

We are convinced that her interest and enthusiasm have not been appealed to in quite the best way. The chief appeal so far has been made by those commercially interested in the sale of apparatus and it is, therefore, not surprising if in her subconscious mind there is an idea that "electricity" is a "something" to be exploited in order to induce her to spend her money.

The average middle-class housewife and prosperous working woman are very shrewd and thrifty persons, but they are very much apt to overlook the fact that thrift of one's energies is often more vital that thrift of money.

This passage from Charles Kingsley is not irrelevant. He says:

"The secret of thriving is thrift—saving of force—to get as much work done as possible with the least expenditure of power, the least jar and obstruction, the least wear and tear. And the secret of thrift is knowledge. In proportion as you know the laws and nature of a subject you will be able to work at it easily, surely, rapidly, successfully. The more you know the more you can save yourself and that which belongs to you and can do more work with less effort. What I recommend to ladies is thrift—thrift of themselves and their own powers, and knowledge as the parent of thrift."

It is to just this form of thrift that electricity is going to help women. But electrical engineers need the help of women in order to help all women to the thrift and gift of electricity, and it is this knowledge—this thrift of effort as Kingsley says—that this Association hopes to help the woman in the home to realise and achieve.

A CONTRAST IN ENGLISH AND AMERICAN HOMELIFE.

Two extracts which are vivid pen pictures in contrast. An English woman writes in the Landmark, 1922:

"I do claim to know something of women. It is always easy to find the common denominator of another woman, for every woman is at heart a house-keeper. In America, my greatest joy was when some kind woman offered to show me over her house—there would follow an hour of thrills while I looked at every kind of labour-saving device and learnt something of what 'you push the button, we do the rest' means over there.

When she shows an American woman over her house, she says she spares nothing. "I begin at the kitchen. I show her the large and extravagant kitchen range that needs polishing and gets polished daily, the awkward prison barred windows, the shelf above the range, so high that you have to stand on a chair to get the coffee tin, the wicked little scullery with the sink in the draught, by the door, the ladder with wooden shelves and borrowed light, the gas stove, in the darkest, remotest corner, the long useless passages, the brass taps in the pantry that are cleaned daily and ought to be cleaned hourly, the kitchen stair with the death trap turn in it, the corpse of the most recent blackbeetle, the cavern coal cellar—all coals have to be dragged upstairs by hand, we've no lift of course. Then I lead her upstairs, telling her of London fog and its speedy way with newly polished silver. Take her into the box room to show her the fine film of soot that gathers in any place that is not dusted daily, and so to the bath room, where we have an iron enamelled bath, fixed so thoroughly that when it sprung a leak, it took the personnel of our little plumber's shop four hours to unroot before work on the leak began... and
finally I lead her back to the drawing room, speechless, where the fire is sure to be out!

"The other picture:"

I understood the whole of America better after I had seen a wireless cooker, an electric sweeper and a dish washer, and a washing, drying and ironing installation. I realise in one moment why American women can do their own housework, wear beautifully pressed skirts and go to lectures with manicured nails."

Miss Florence Faft in the Landmark says:

"After all, the one aid which has more than any other single thing changed our old-time housekeeping and contributed to its present-day efficiency is electricity. If the American housekeeper wishes her house cleaned, she does not, as formerly, have her carpets and rugs laboriously taken up and out and beaten; her beds whipped and her walls, pictures and mouldings brushed and wiped; she uses an electric vacuum cleaner—so easily run and managed as to make the task one which any woman may undertake if necessary. When she wants her laundry work done she starts up the electric washer, which merrily and expertly washes, rinses and wrings the clothes while the operator may be spending most of her time upstairs doing other work. If she wants to sew the 'long white seam,' she sits down to her electric sewing machine. Her dinner may be coolly and deliciously cooked by an electric range. An electric flat iron accomplishes the ironing, an electric pad eliminates the hot-water bottle; an electric waving iron curls her hair.

"On her table she employs all sorts of electric devices—toasters, grills, chafing dishes, coffee-pots, etc.

"All of these and many other devices—their name is legion—help to make the American housekeeper's task as light as possible."

VALUE OF THE WOMAN'S POINT OF VIEW.

To an interested onlooker it appears that electrical engineers are playing a lone hand in their endeavours to popularise electricity in the home. They are trying to reach and teach a people whose language they do not speak. While one admires man's colossal struggle with this mysterious and giant force, electricity, one can but pity his loneliness on the heights and see how unfeited, after bracing mind, nerve and energy to his enormous tasks, to come down from the heights and talk to the ordinary folk of the results of his achievement. How can he turn from the wonders he has seen in his vision to talk prosaic details about cooking apparatus? It is somewhat paradoxical that after an exceedingly scientific and technical training, his final goal is to deal with simple everyday folk and popularise simple everyday things for everyday use—a task for which his very training has rendered him singularly unsuited.

He very properly likes woman to keep to her place in the scheme of things, but if she is to come and talk to him about the everyday products he has prepared for her and which very much concern her in the said scheme of things, he compels her to wrap herself round with a man's garment before he will talk with her on what he considers his own ground and admit her to his institutions.

Let men talk "Men's talk" and see how soon the women of the household leave them to get on with it and talk their own talk in turn. You say "We cannot see what you women find to talk about." No! and you never will. Women are not less clever than men, but theirs is a different sort of cleverness and materialises in comfortable homes, delicious cookery, and raising a nation—raising it both ways!

Women like their fathers, husbands and brothers to talk their clever "Men's talk," but it leaves them with a vague feeling that it is all very difficult and uninteresting and has nothing to do with them—which is just the impression electrical engineers want to remove and avoid, for their future prosperity and increased success in the domestic use of electricity depends on the women. Every clever man knows that once he gets the women of the household on his side he has an alliance of tremendous force and power.

The woman who does not love home and home life is still the exception. She does not want to take a man's job. What she would like to do is to collaborate with him in such a way that their united efforts would result in creating more jobs than there are men to fill them. And every woman in the home knowing that this was women's ambition in the business world, would lend her aid, realising that the creating of more men's work leads in the end to the creating of more comfortable homes; a goal which will be ultimately attainable when the results of this unhappy war are outlawed and the coming generations take their normal spheres.

The thoughtful man realises that he has a powerful asset in the woman in the home, but how can he realise his assets without making economical conditions worse than they are today so far as men's prospects are concerned? The thoughtful woman knows that there is a way of reaching women without an atom of displacement in the tide of men's affairs, but who shall show the way?

WHY NOT A WOMAN'S ELECTRICAL ASSOCIATION?

Why women have a right to be interested in forming this Electrical Association!

Because electricity is the coming power and is yet to play the most important part in still further advancing civilisation.

Because it is going to be one of the most important factors in home life and therefore concerns her primarily, and she should at least be given an opportunity of studying the subject in all its aspects so far as it concerns the home.

Because she has a right to an interest in any development which has so great a bearing on health, comfort, cleanliness and the easing of
drudgery in the home, which holds forth so great a hope to suffering humanity in its varied remedial forms and which promises better health in cities consequent on abatement of smoke nuisance.

Because she does not wish to take the easy, luxurious side of everything, including electricity. She would much prefer to understand a good deal of all the courage, patient perseverance and toil and vast sums that have been expended in order to supply electricity at 2½d. per unit!

SOME OF THE OBJECTS OF THE ASSOCIATION.

To render service by the exchange of information and ideas likely to help to raise the standard of home comfort, the health and education of our families and ourselves, and to draw together all progressive women and home lovers in a bond of comradeship.

To support similar societies or movements for promoting the welfare of the people and their homes.

To provide places of meeting and social centres in London and elsewhere.

To collect and distribute information regarding the domestic and remedial uses of electricity and all matters relating to the welfare of the home and the family.

To promote lectures and addresses of peculiar interest to women in the home. To offer prizes for essays, and hints on new uses for electrical apparatus, or clever ideas on established uses, hints and schemes interesting to women in the home and to encourage schemes in schools and universities with regard to lectureships combining a knowledge of electricity in connection with domestic science.

To produce and publish literature dealing with any and all subjects of interest to women in the home, with special regard to electrical development, and eventually publish a high class magazine.

To adopt a pledge for members summarising the beliefs and aims of the Association.

To form a group of Associations throughout the country having corresponding secretaries who would keep women members in the home posted on all developments of interest to them and help to organise social events, lectures, exhibitions and entertainments.

We have a complete programme and scheme of development for the future of this Association, especially in connection with its social side and student or junior section. We feel that we need to take long views in the matter of our young people and realise that, as the husbandman must look to new growth for future abundance, so we must interest and educate the young people if they are to form progressive ideas and high ideals for the homes of the future.

We contemplate the possibility of a Summer School, arranged at a University centre, to cover electricity for domestic uses, domestic science and remedial purposes, in its schedule of addresses.

Co-operative purchasing privileges for members and the possibility of a loan upon which members could draw for the purpose of wiring and equipping the home electrically.

Another step in the progress of the Association is a Club House, which will be an "Electrical House" in every sense of the word, and for this we have very complete schemes drawn up.

All these schemes are detailed in a paper written by myself in October, 1923, and which is in the possession of the Women's Engineering Society.
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INVENTOR AND INVENTIONS, By J. W. Dow.

The Woman Engineer is issued quarterly—price 6d.
THE WOMEN'S ELECTRICAL ASSOCIATION.

Since the Report in our last issue dealing with the inaugural meeting of the Women's Electrical Association, this organisation has commenced its existence in a very energetic way.

A pamphlet has been published outlining its aims and objects, giving an indication of the way in which it is proposed to carry out its programme.

A list of the Principal Council is also given, together with the name of the first President, the Viscountess Astor, M.P. Since publishing this first list of Officers and Council a number of additional names of distinguished women have been added to the list of Vice-Presidents, including those of Mrs. Wilfrid Ashley, Mrs. Philipson, M.P., and Miss Ellen Wilkinson, M.P.

Part of the work already undertaken by the Women's Electrical Association has been a lecture arranged on behalf of the Women's Co-operative Guild at Birmingham, in January, at the Annual Meeting of the Central Committee and eight Sectional Committees. This lecture was given by Miss Margaret Partridge on "Electricity," under the following headings:

1. What is Electricity? 2. To what uses can Electricity be put? 3. What are the special uses of Electricity in the home? 4. Why is Electricity not more used in English homes? 5. What steps can women take to secure the advantages which Electricity has put at the disposal of mankind?

At the end of the meeting a resolution was passed calling upon Supply Authorities to make greater provision for the service of electricity in working-class districts at a reasonable cost.

A number of other lectures are being arranged for various organisations, including one for the Worcester Branch of the Women's Institute.

It is quite obvious that the Women's Electrical Association did not come into being a moment too soon! Evidence is being received from all directions of the demand, not only from the housekeeper, but from women in many other spheres of work, for an opportunity to gain a more comprehensive and intelligent understanding of the uses to which electricity can be put in the service of women.

The most practical piece of work which the Association could undertake immediately appeared to be the holding of a short series of lectures giving simple knowledge on matters electrical which so many women recognise the need of.

A series of three lectures will therefore be given by Miss Margaret Partridge on March 18th, 25th and 1st of April, respectively.

The first lecture will deal with the wiring of a house, mending of a fuse and other simple subjects; at this lecture the chair will be taken by the Hon. Lady Parsons. On January 26th Miss Partridge's subject is the All-Electric Home, at which Alderman Mrs. Hamill will preside. The third lecture will deal with the various uses to which electricity can be put in the service of women; Lady Trustram Eve, of the L.C.C., is chairman for this lecture.

During each afternoon demonstrations will be given and slides shown illustrating the subject under discussion. In order that the lectures should be of a friendly nature a tea will be provided during the proceedings.

The discussions at these lectures should be particularly instructive as it will give some interesting indications of the point of view of the woman in connection with the apparatus which the engineer has provided for her use in the home. Although in the past the idea existed that the woman in the home could not possibly have any interest in the work of the engineer, yet gradually we find that with the further utilisation of electric power the engineer has turned his attention more and more to the home as being the place where his knowledge can be turned to useful and good use. Thus it is gradually beginning to dawn upon the mind of the electrical engineer and of the woman in the home that they can no longer regard each other as living in separate worlds.

The aim of the Women's Electrical Association is that with the aid of science and man's ingenuity the drudgery and toil which has always been the lot of the woman in the home, should give place to a future of beauty and harmony.

From the interest which is being displayed in the Association we feel that there is no limit to the useful work which the Women's Electrical Association will have an opportunity of performing to bring to woman that real freedom from drudgery and bad conditions which have been so great a handicap to her from time immemorial.

ELECTRICITY. Reprint of a lecture given by Miss M. Partridge (Price 1d.) from the Women's Electrical Association, 29, George Street, Hanover Square, W.1.
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THE WOMEN'S ELECTRICAL ASSOCIATION.

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PAYMENT AND INCENTIVES IN INDUSTRY,
By CAROLINE HASLETT.

* * *

THE INDUSTRIAL INSTITUTE.

The Woman Engineer is issued quarterly—price 6d.
THE WOMEN'S ELECTRICAL ASSOCIATION.

This title we write for the last time, as from now onwards the Association is to be known as the Electrical Association for Women.

This change of title has been necessitated by the fact that our initials appear to clash very badly with those of the Workers Educational Association, and thus in order to avoid any confusion in the public mind it has been thought proper at the very outset to give the Association a new title. It will, therefore, in future be known by the initials E.A.W.

The three lectures given by Miss Partridge, in London, at the end of March and beginning of April, proved to be a great success. The women present were very anxious to know how to mend their fuses, and in fact one member suggested that no one should be allowed to leave the Conference Hall until she could prove that the mending of a fuse was no longer a matter of great mystery to her.

The apparatus, which was kindly lent by the Westminster Electric Supply Corporation, added very considerably to the interest of the lectures. Many requests have been received for these lectures to be repeated, especially during the evening, and it is hoped in the autumn to arrange a similar series on the same practical basis.

In addition to these lectures Miss Partridge has visited Worcester and other places in the country.

The requests for lecturers from various women's organisations is growing considerably, and it has, therefore, been decided to draw up a panel of women who are able to give simple lectures on various aspects of electricity as it affects the interests of women.

A possible future development of the Association will be to arrange for a definite course of instruction for these lecturers.

Requests have come from various parts of the country asking headquarters to form branches. It is hoped that in the autumn a campaign will be started in some of our large towns, and that branches of the Association will be formed.

A number of interesting visits have been arranged by the Association, including one to the E.I.M.A. Lighting Service Bureau, where Mr. W. E. Bush gave an interesting talk on "Good and Bad Lighting Methods," accompanied by some very excellent lighting demonstrations.

On May 27th the Association visited the Magnet Electric Home, where an interesting afternoon was spent inspecting a very excellent exhibition which had been arranged.

The committee which has recently been set up by the Electricity Commission will be of interest to all women, and the Association has been asked to give evidence before this committee, which probably is the first occasion on which the Government has seriously considered the women’s point of view in relation to domestic electric supplies.

I.M.E.A. CONVENTION AT BRIGHTON.

The Incorporated Municipal Electrical Association are holding their Thirtieth Annual Convention at Brighton this year. A new feature is to be introduced at the Convention by the holding of a Special Meeting for Women at the Royal Pavilion, on June 16th, at 2-30 p.m.

The Chair is to be taken by Mrs. W. C. P. Tapper, who will be supported by the Mayor of Brighton.

Our Chairman, Alderman Mrs. Hamer, is to read a Paper on "The Education of Young Women in Electric Cooking in Polytechnics and Secondary Schools." Mrs. Howie is giving a paper on "Electricity and Health," and the important subject of "Electricity in the Home" is being dealt with by Mrs. T. A. Kingham. The Director of the Electrical Association for Women will also give a short address on the "Development of Women’s Interests in Electricity.”

After the meeting tea will be served in the Corn Exchange, where an Exhibition of Electrical Apparatus has been arranged.

It is anticipated that there will be a large and successful meeting, and we congratulate the I.M.E.A. on this novel and valuable innovation at the Brighton Conference.

Miss Lanteer, who is a member of the Council of the Electrical Association for Women, is responsible for all the arrangements which are being excellently carried out.

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The variety of enquires received by the Association for information of all descriptions and the growing membership indicate the useful work which is in front of our Organisation.

EXHIBITION OF INVENTIONS.

That energetic and enterprising organisation, the Institute of Patentees, is arranging a very large and comprehensive Exhibition of Inventions at the Central Hall, Westminster, from June 8th to 18th. The main idea of the Exhibition is to create and stimulate trade and commerce and to bring together the inventor, the manufacturer and the financier. The Exhibition will be divided into two sections, the first consisting of Inventions which are on the market, and the second of Inventions which are not on the market. Attractive money prizes are being offered and a special prize is being offered for the best Invention by a woman. The judging will be conducted under the chairmanship of Lord Askwith, and amongst the judges there are two women.