

Sept. 26, 1919

I have been asked to prophesy--and prophesy before experts, and I do it with more facility and assurance possibly than I would be able to command if I knew more of the subject.

I come to it as an observer, long interested in industry in general. In assigning me this subject I have supposed that the Committee really had in mind what was to come in the future to women in industry out of their working experience during the war. These experiences have been sufficiently striking to attract general attention in the countries of all of the belligerents. And they have been strikingly similar, particularly in England, France and the United State.

No doubt the two facts which have impressed most observers about women in the war industries have been the numbers that have been drawn into them and the variety of work which they have undertaken.

No sooner had Frenchmen begun to mobilize in August, 1914, than we began to hear amazing reports of the way French women were instantaneously taking up the work that had been left behind by the men. Almost at once street car lines, the Paris subway, the street cleaning department, the taxis, were taken over by women. A little later we began to hear of women in French factories, where they never had been seen before, and particularly great numbers in munition works. At the e

re were 44162

women in French mun

es. Three years later, 1918, there were 399,8

In England, the phenomenon was the same. At the breaking out of the war there were 3,275,000 women in all kinds of <sup>labor</sup> ~~in~~ <sup>under</sup>

*about 2,175,000 in industry - in Jan 1918*  
 industry in England. ~~About six months later~~, there were 2,705,500

*an increase of about 1/2 million*  
 when the war closed, . The same thing, as we know,

happened here. Take it in this city of Cleveland. In the metal

trades there were at the opening of 1917, when we went into the

war, women employed. At the close of the war

there were . And this is typical of what went on

all over the United States.

The second thing which amazed the general observer was, as I have said, the number of things into which women immediately pushed their way.

The whole working life of a community at many points was turned over to them. I remember receiving a letter from a correspondent

in a London suburb in 1917 in which she said *all the qualities of*  
*work carried on by women.*

We all remember, I am sure, the English shipbuilder who declared he could build a ship from start to finish with women's labor. In our own country, we had them going into such unlikely things as the lumber business,

If the general observer had been a little more inclined to compare what he saw going on with what has gone on with every country in war time, he would have been less amazed. War has always forced women to fill places vacated by men. Study our own Revolution--the war of the Rebellion, and you will find women doing all kinds of unexpected things. You have seen the same thing in the French and English wars. The difference this time has been in the scale on which the great enterprise was carried out, the number of countries engaged in it and, too, the great difference in the operations now and in previous wars. That is, in spite of the fact that these are the two things that stand out most prominently in any consideration of women in war industries, they are simply the things that were to have been expected. They do not, in my judgment, affect the future nearly as deeply as many people are inclined to think. As we go on to a normal peace basis, these numbers will drop back. That is, the women will not stay and not want to stay. There are no doubt many of the industries in which they have been active and useful from which they will entirely disappear.

There are, however, certain phenomena in connection with this subject which are bound, I think, to have a permanent and important influence on the future.

Among these things are the fact that for the first time in the history of industry, women have proved themselves to have the capacity to do machine work--and not only to do it, but to do it well. And, what is quite as important, to like it. It has generally been believed by men and I think no less by women that they could not handle machines. And yet the War was not many months old in England before employers were seeing with surprise that women were being taught to handle machines and to handle them satisfactorily.

There were difficulties to be overcome in the way of training. One of the most interesting reports that I saw from any country during the war of experiences in preparing women came from Mr. Upp of the General Electric Company.

Mr. Upp wrote with surprised enthusiasm. He had foreseen that he would be short of help and decided that he must use girls, and realized that he must train them. He notes some of the difficulties that had to be overcome. One very interesting and important one was the fact that a woman, as a rule, has no sense of measurement, that she does not distinguish between an inch and a quarter of an inch. Another is her lack of appreciation of the sharpness of a tool. She would go to work with a dull tool as quickly as she would with a sharp one, and have no sense of what was hindering her. But, having overcome her feminine blind spots about certain common things of



industry, having trained her to the technique of an operation, Mr. Upp's experience was that she was a more exact workman than a man. She did what she had been taught to do in the way she had been taught to do it.

If the men were surprised to find that a girl could be taught, I think there has been no less surprise on the part of women that they could go into machine shops, do the work satisfactorily,-- and like it.

Possibly the greatest effect on the future of any of the experiences of women in industry during the War--that is, the greatest effect on the women herself, has come just from that, that many women have found that the higher processes of industry interest them--interest them more than certain things that they have been accustomed to doing. If this be so, now that the ice is broken, I believe that it means that in the future a certain number of women at least will be seeking work which they have always supposed was closed to them.

Another development in this field of women in industry in the war that is bound to have much influence was the strides that the standards governing her work took in every country. From the moment that it was realized that she was bound to play a large part in war production, that she was being called into many trades and positions where women had never before been seen, the public began to demand that she would be protected in this new undertaking.

England's experience of course is familiar. A year had not passed before the government had a commission at work observing the effect that the unusual labor was having upon the health of women. The result of the investigations there was to drastically change hours and conditions. This was done, primarily, for the sake of production. It was found that the hours in which she had been willingly working for the sake of the cause were not so productive as the shorter ones. And England went on through the war developing regulations, prohibitions, adjustments which should protect the women in this new task. The same thing happened in France. Altogether the best set of regulations and ordinances governing women in industry that France has ever had was worked out in the years 1916-1917 in order to meet the public demand that women should be cared for. We had the same thing happen in this country. From the opening of the war, one of the grave concerns of the country was the protection of women. The Women's Committee of the Council of National Defense, which was organized to pull together all of the great organized bodies of women in this country in order that they might carry out coöperatively the requests that the Government might have to make of women in carrying on the war, --one of its first concerns was to establish a department of Women in Industry in order to stimulate all of the great women's agencies to keep an eye on the conditions under which women

were working and to aid in correcting them if they were wrong.

As soon as the Government had worked out a set of standards for women in shops and factories, upon which they could all agree, the Women's Committee undertook to make these standards generally known. We were able to put them before ten or twelve million women, and it is probable that in nine-tenths of the cases these women for the first time were put face to face with a high set of standards and were made to feel that they had a personal responsibility in supporting them. That is, all over the industrial world there was an enormous expansion of the ideas of what proper industrial conditions are for women and a tremendous pressure brought to bear upon all sorts of people to see that these conditions were brought about.

Now, it is inconceivable that after such an education in this matter as England, France and the United States have had during the war that we should ever fall back to where we were before the War. Certain standards have been made known and accepted. The whole future of women in industry will be influenced by this. The tendency will be to improve and extend them. That is, in the future women in industry is bound to be more thoroughly safeguarded than she has ever been before. Every ten years, in my judgment, is bound to see a very substantial advance over its predecessor.

Another important development from the war that we cannot but affect the future very profoundly is the general recognition that



has been given to that position in factories that we sometimes refer to as the welfare worker,--the woman employed to supervise the health--and not only to supervise the health and habits of girls in factories, but to train them to better habits of life and to lead them into a happier and more civilized manner of living. Most of us are familiar with the way in which a few women in this country, thrown into factories, neither they nor their employers knowing very definitely what could be done, and yet all feeling that there ought to be somewhat of a kindly and intelligent supervision of the girls, have developed their positions to what might be called a professional standpoint. They have proved of the greatest service to both management and workers.

One of the most valuable undertakings of the Government in its effort to bring the management of war industries up to the highest point of scientific and humane efficiency was to undertake the training of women for these positions.

In the Spring of 1918 the War Industries Board started classes in management. The first of these was held in Rochester, N.Y. Other classes were started later in connection with certain colleges. Women were admitted to these classes. Out of the past experience of thoughtful, experimenting employers, there had come a result so important that when the Government, attempting to utilize all of private developments of importance, seized upon this, a most surprising response to the opening of these classes came from women throughout the country.



Many more applied than could be accommodated although the requirements were severe. One requirement of admirable good sense was that no woman could be admitted to these classes who had not had two months' actual experience in a factory. Here in this city women of education and social position sat at machines in one of the great factories through the summer of 1918, getting this preliminary experience. Many employers of large bodies of women in different parts of the country, hearing of what the Government was doing, and who had trusted women who had been working their way more or less blindly to try to develop the position,--asked permission to send these women into these classes.

The thing that our Government realized and attempted in this very thorough way to meet, was realized in other countries. England and France both developed training classes for women supervisors where bodies of girls were employed.

Now, I cannot but believe but that here again the future of women in industry is bound to be very profoundly influenced by this experience. In past years it has been the habit to collect great groups of girls helter-skelter and throw them together in great work rooms. They came in without instruction, they passed their days without any particular supervision. If they were ill they must drop out or be dismissed. Nowhere was there an effort to prepare them for the work which they were to do, to see that their health was properly cared for, to try to explain things in the shop that would reach out to their life at home. The occasional

modern employer has, as I have said, tried to meet the very obvious need if he were to build up a stable body of working girls.

But the War came. Its needs were so great that every effort must be made to improve and stabilize labor. The value of these women supervisors was immediately recognized, and what had been a sporadic, private enterprise suddenly becomes a government policy. This not only means much that is of value to the working girl herself but it means the introduction into industry of a high grade woman whose vocation will be not only that of a physical and intellectual but a moral teacher and leader. It is hard to conceive of a position in which a woman can be of more genuine value to society than in this relation to 500 or a thousand girls whose opportunities in life for health and decency and for future usefulness and happiness are so limited. It has a great influence for the girls and for society and it is a great thing for the women themselves. It literally opens a new profession for women.

Now these are very fundamental gains for the future.