

From Domesticity to Industry: Women's Work in Munitions Factories in Britain during the First World War

De la Domesticité à l'industrie : Le Travail des Femmes dans les Usines de Munitions en Grande-Bretagne pendant la Première Guerre Mondiale

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Received: 20/08/2025,

Accepted: 15/11/2025,

Published: 25/12/2025

Abstract: This article scrutinises the experience of British women employed in munitions factories during the First World War, with a focus on health issues, physical risks, and gendered dimensions of wartime industrial labour. Drawing on a range of primary sources –including government reports, personal testimonies, and archival materials from the Imperial War Museum- this study explores the dual identity of the “munitionettes” as both patriotic contributors and expendable labourers in a perilous workplace. The research highlights the impact of chemical exposure (notably TNT poisoning), long working hours, inadequate safety measures, and the psychological impact of factory life. Beyond the physical dangers, the article examines how these women challenged existing gender norms, reshaped notions of citizenship, and depicted early discourse on labour rights and gender equality. By situating women's industrial labour, the article argues for a reevaluation of their contribution not just to wartime production but to Britain's social and political transformation.

Key words: British women workers- First World War- munitions factories- TNT poisoning- gender and labour history.

Résumé : Cet article examine l'expérience des femmes Britanniques employées dans les usines de munitions pendant la Première Guerre Mondiale, en mettant l'accent sur les problèmes de santé, les risques physiques et les dimensions genrées du travail industriel en temps de guerre. S'appuyant sur un ensemble de sources primaires – notamment des rapports gouvernementaux, des témoignages personnels et des documents d'archives de l'Imperial War Museum -, cette étude explore la double identité des « munitionnettes », à la fois contributrices patriotiques et travailleuses remplaçables dans un milieu de travail périlleux. La recherche met en évidence l'impact de l'exposition aux produits chimiques (notamment l'intoxication au TNT), les longues heures de travail, l'inadéquation des mesures de sécurité et l'impact psychologique de la vie en usine. Au-delà des dangers physiques, l'article examine comment ces femmes ont remis en question les normes de genre existantes, remodelé les notions de citoyenneté et illustré les premiers discours sur les droits du travail et l'égalité des sexes. En situant le travail industriel des femmes, l'article plaide pour une réévaluation de leur contribution non seulement à la production en temps de guerre, mais aussi à la transformation sociale et politique de la Grande-Bretagne.

Mots- clés : Femmes travailleuses Britanniques - Première Guerre mondiale - Usines de munitions - Empoisonnement au TNT - Genre et histoire du travail.

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Introduction

Britain's involvement in World War I (1914-1918) was a turning point in modern history. The country entered the war on August 4, 1914, after Germany violated Belgian neutrality, which Britain had pledged to protect under the 1839 Treaty of London. What initially seemed like a short conflict soon turned into a prolonged and devastating war that reshaped Britain politically, economically, and socially. Indeed, beyond the battlefield, the war deeply affected British society. Women took on new roles in factories and hospitals. As men left for the front lines, women stepped into jobs that were previously closed to them, proving their capability in the workforce and playing a crucial part in the war effort. Their role became vital as they took responsibilities both at home and on the front lines. These were extended to industry, agriculture, medicine and voluntary services significantly transforming their role in society. Their contributions not only helped Britain during the war but also changed attitudes about women's roles, leading to greater rights and opportunities in the years that followed.

The First World War depicted profound shifts in British labour dynamics, particularly regarding the role of women in heavy industry. As men were conscripted en masse, women were recruited into roles traditionally reserved for male workers. Among the most dangerous of these were positions in munitions factories. This article explores the lived experiences of these women – “the munitionettes” – within the context of wartime Britain. Their contributions were both celebrated and overlooked: they were essential to victory, yet worked under dangerous, often invisible, conditions.

The First World War is identified as an unprecedented reconfiguration of British society, industry, and gender roles. When millions of men were mobilised for military service, the nation faced a critical labour shortage in its key industries. Among the most pressing needs was the large-scale production of munitions-shells, cartridges, and explosives- which became a matter of national survival. In response, tens of thousands of women entered factories, arsenals, and filling stations, taking on jobs that had been traditionally reserved for men. This mobilization of women's labour not only bolstered Britain's military capacity but also implied a profound transformation in perceptions of women's capabilities and roles in the public sphere.

This article focuses on women's work in British munitions factories during the First World War, with particular attention to the material conditions of their labour, the health dangers they endured, and the broader socio-political implications of their industrial contribution. The research is grounded in a combination of primary archival materials- including factory records, diaries, personal letters, parliamentary debates- and secondary scholarship that contextualizes these experiences within the fields of gender history, labour history and war studies. Archival evidence, such as the 1917 diary of Florence Leach and the letter from Elsie H., a worker at the Coventry Ordnance Works, provides a rare glimpse into the lived reality of women who balanced patriotic duty with personal risk.

While women's entry into heavy industry was initially framed as a temporary wartime necessity, the experience had far-reaching consequences. It altered workplace cultures, challenged entrenched Victorian ideals of domestic roles, and sparked debates on women's post-war employments rights. These debates intersected with the political momentum that culminated in the Representation of the People Act 1918, which enfranchised many women for the very first time. The war work of “munitionettes” thus became part of a larger narrative about women's citizenship and participation in public life.

The central research question driving this study is: To what extent did women's employment in British munitions factories during the First World War transform both their working conditions

and societal perceptions of gender roles, and how did this experience contribute to post-war shifts in political and social rights?

1- Historiography

Scholarly attention to women's labour during the First World War has evolved significantly overtime, reflecting broader historiographical trends in gender studies and labour history. One of the foundational texts in the field is Arthur Marwick's *The Deluge: British Society and the First World War* (1-350: 1965), which framed women's wartime work as temporary but socially significant departure from prewar norms. Marwick acknowledged the transformative nature of women's industrial labour, though he primarily focused on broader societal shifts.

Later works focused on British women's contributions during the war workforce, particularly in munitions factories. In their book, *Out of the Cage: Women's Experience in Two World Wars*, Gail Braybon & Penny Summerfield (1-290:1987), explore how women moved into traditionally male-dominated jobs, particularly in munitions factories, transport, and agriculture. The authors argue that while women proved their capability, they were paid less and often forced to return to domestic roles after the war. Their research utilised oral histories and personal narratives to challenge monolithic depictions of female workers, arguing for a more nuanced understanding of class, region, and individual agency.

In her book, *On Her Their Lives Depend: Munitions Workers in the Great War*, Angela Woollacott (1-290: 1994) examines the dangerous working conditions, including exposure to TNT which led to "Canary Girls" syndrome and the high risks of explosions. She also discusses the government's propaganda, which encouraged women to see factory as a patriotic duty. She offered a detailed examination of the occupational dangers faced by female munitions workers. Her use of factory records and medical reports illuminated the physical toll of war work and drew attention to how these dangers were often minimized by the government and the media. Woollacott, also investigated how female labourers navigated both opportunity and exploitation.

Additionally, Susan Grayzel's *Women's Identities at War* (1-328:1999) provides a comparative perspective on British and French women's wartime roles. She argued that women's industrial labour contributed to a renegotiation of gender and citizenship, particularly in the context of government propaganda and suffrage movements. Grayzel emphasizes how the government both enabled and constrained women's participation.

The above studies illustrate that while women in military support did not fight, their work was physically and emotionally demanding and help reshape attitudes towards women in professional roles. Another major focus in the historiography is the impact of the war on women's rights, suffrage, and social status. In *Gender, Modernity, and the Popular Press in Interwar Britain*, Adrian Bingham (1- 304: 2004) examines how the British press portrayed women before and after the war. He argues that while the war gave women more independence, there was strong resistance in gender roles.

On her turn, Susan Grayzel (1- 184: 2002) in her book, *Women and the First World War*, explores how women's wartime contributions influenced the suffrage movement in Britain. She considers the Representation of the People Act 1918, which grants some women the right to vote, as partly a reward for their war efforts.

Those studies indicate that although the war expanded women's opportunities, many changes were reversed post-war, showing the slow pace of gender equality progress in Britain. Thus another field or research raised namely the challenges and limitations of women's war

contributions. Indeed, while much literature celebrates women's contribution, some scholars highlight the limitations of wartime advancements.

In her book, *Nice Girls and Rude Girls: Women Workers in World War I*, Deborah Thom (1- 288: 2000) challenges the idea that the war led to lasting gender equality. She argues that women's wartime work was considered as temporary, and that most women were pushed back into domestic roles after 1918. She explored how images of patriotic munitions workers constructed to reinforce rather than to subvert traditional gender roles, complicating the notion of wartime emancipation.

Nicoletta Gullace (1-320: 2002) too had the same stance in her book: *The Blood of Our Sons: Men, Women and the Renegotiation of British Citizenship during the Great War*. She examines how gendered citizenship was shaped by the war. Gullace highlights the contradiction that, despite their contributions, women were still considered as secondary citizens compared to men.

Those works suggest that while women's participation in the war expanded their social and political rights, it did not lead to real equality. The role of women in Britain during World War I has been widely studied, with scholars agreeing that their contributions were vital to the war effort. Women proved their ability to work in factories, hospitals and military support roles, but social and political change was slow. While the war enabled them to gain the right to vote, many were forced back into traditional roles once the war ended. Yet, their involvement laid to the foundation for greater gender equality in the decades that followed.

In this context, this paper will provide further details that had been overshadowed and did not deal with the different features that shaped the involvement of women in Britain in World War I. Their work place conditions, their tasks and above all their hardships to overcome the war supplies and guarantee British victory are the core of this research. This article explains how the wartime employment of women in British munitions factories during the First World War challenge societal gender roles, and shed light on the personal risks as well as the broader consequences of their labour.

1- The Munitions Crisis of 1915 and Women's Entering the Munitions Factories: Mobilisation and Recrutement

Before the war, women were largely confined to domestic roles or low-paid jobs. However, with millions of men joining the military, women stepped in to fill critical labor shortages. During the war, women became munitionettes, producing weapons, shells, bullets and the explosives for the military in factories. This work was dangerous, physically demanding, and essential to Britain's success in the war. The mobilization of women into munitions factories during the First World War marked a pivotal moment in the reconfiguration of Britain's industrial workforce.

With the outbreak of war in 1914 and the escalating demand for artillery and ammunition, the British government confronted a severe labour shortage. The 1915 *Shell Crisis* when British troops on the Western front ran dangerously low on munitions- exposed the inadequacy of existing production systems (Baker, 67: 2010). By the spring of 1915, Britain's war effort was at risk due to a severe shortage of artillery shells and small arms ammunition. The problem became public during the second battle of Ypres in April- May 1915, when reports emerged that British troops were unable to maintain sustained bombardments against German positions (French, 213: 1918). *The Times* and *Daily Mail* ran high profile stories – most notably the *Times*' "Shell Scandal" article of 14 May 1915:

It is now evident that our troops in the field have suffered gravely from an inadequate supply of high-explosives shells. The enemy has been able to maintain a superiority of fire which our

brave men could not encounter, not from want of courage but from lack of the munitions they required. (*The Times*, 7: 14 May 1915).

The public outcry intensified when the *Daily Mail* went further, accusing the government of negligence: “Our gallant troops are left with an insufficient supply of the vey weapons that would save their lives and gain us victory. The responsibility of this grave failure rests heavily upon the Government.” (*Daily Mail*, 5: 15 May 1915).

The crisis had both political and industrial origins. The prewar armaments industry was relatively small and heavily unionised, with skilled men workers dominating production. War planners had assumed that existing facilities could scale up without fundamental change. In reality, the unprecedented scale of shell consumption -often thousands per day on a single front- overwhelmed traditional production methods (Marwick, 85-86: 1965).

The 1915 Shell Crisis precipitated a political crisis. Public outrage over the shortage contributed to the fall of Prime Minister Herbert Henry Asquith’s Liberal Government and the formation of a coalition in May 1915. As part of the response, in June 1915, the new Coalition Government created the Ministry of Munitions, under the leadership of David Lloyd George (British Ministry of Munitions, 3-9: 1917). In his first speech to the House of Commons in that role, he declared:

The great need of this war is munitions. We have men in abundance-men as brave as ever faced an enemy- but without the necessary supply of shells and guns, their heroism is useless. The Ministry of Munitions is the instrument by which we shall secure a never-failing stream of ammunitions to our soldiers in the front (Hansard Parliamentary Debates, 21 June 1915, vol. 72 cols. 1840-1841).

This ministry had sweeping powers to regulate wages, hours, materials, and crucially labour allocation (Grievs, 44: 1988). One of the ministry’s most controversial measures was “dilution”- the systematic replacement of skilled men workers (many of whom were serving at the front) with semi-skilled or unskilled labour including large numbers of women. Initially opposed by trade unions, dilution became more acceptable once the government promised that women’s wartime roles would be temporary and would not undermine post-war men employment rights (Thom, 54-55: 2000).

The Munitions of War Act 1915 gave legal force to this transformation. It prohibited strikes and lockouts in munitions industries, introduced compulsory arbitration, and imposed strict control over worker mobility. For women, this opened the door to unprecedented employment- particularly in shell filling, fuse assembly, and cartridge case production. However it also meant long hours, exposure to toxic chemicals such as trinitrotoluene (TNT), and heightened accident risks (Gullace, 188: 202).

The resolution of the Munitions Crisis marked the start of what the historians have called the “munitionettes” era. The key solution was the large-scale recruitment of women into industrial work. According to December 1915 Ministry of Muniton Labour Report:

The Employment of women in shell-filling factories has increased from 7,000 in June to over 50,000 in December 1915. Many have had no previous industrial experience, coming directly from domestic service or shop work. (National Archives, Ref: MUN 5/42, p.3).

Thus to resolve the crisis, the government turned to a previously untapped labour force: women. The mobilization campaign employed extensive propaganda to encourage women to “do their bit” by joining the war effort through factory work. Government posters, newspapers advertisements, and speeches framed factory work as both a patriotic duty and a unique opportunity for women to save the nation. As Nicoletta Gullace (105: 2002) illustrates, these campaigns portrayed women as heroic figures, producing shells to protect their loved ones at the front, even as they were exposed to danger themselves.

The recruitment progress varied depending on the region and the scale of industrial needs. Some women were conscripted from domestic services or textile jobs, while others volunteered out of a sense of national duty or for better wages. For many working-class women, munitions work offered a substantial increase in income and a sense of personal agency (Braybon and Summerfield, (84-61:1987). Wages, although still unequal compared to men's, were higher than what women earned in traditional sectors like laundry work or sewing (Thom, 112: 2000).

By mid-1917, nearly one million women were working in Britain's munitions industry, making up the majority of the workforce in some factories (Grayzel, 76: 1999). This workforce included both single and married women, as well as teenagers and older widows. Training programs were implemented in large factories, and many of the newly built National Filling Factories were designed to accommodate large female workers, often providing childcare, canteen, and medical services on site (Woollacott, 36-40:1994).

On July 1918, approximately 947,000 women were employed in munitions work in Wartime Britain (British Ministry of Munitions, 1917; Thom, 35: 2000). Though the munitions work's wages were better than other sectors, the danger was perilous. Women in munitions earned average wage in 1917 of 25- 35 shillings per week, compared to 10-15 shillings in domestic roles (Thom, 113: 2000). However, their shifts ranged from 10 to 12 hours per day, often with night shifts. Some women worked up to 70 hours per week, particularly during wartime emergencies. This affected their physical ability and provoked psychological factory impact issues (Health of Munitions Workers Committee Report, 1917).

However, the mobilization of women was not without resistance. Men trade unions, when acknowledging the necessity of female labour, often pushed for agreements that guaranteed women would be dismissed once the war ended, to preserve jobs for returning soldiers (Gullace, 142: 2002). Additionally, many middle- and upper-class observers expressed anxiety about the moral and social implications of women working outside home, particularly in mixed-gender environments involving machinery and night shifts (Kent, 127-132: 1993).

Despite these tensions, the rapid mobilization and recruitment of women into munitions factories represented a major step toward redefining gender roles in wartime Britain. It provided women with a new visibility in public life, afforded them unprecedented industrial experience, and laid the foundation for future debates on gender equality and labour rights.

2- Women's Dangerous Working Conditions and Health Issues in Munitions Factories

The industrial environments in which British women worked during the First World War were notoriously dangerous, often marked by exposure to toxic substance, long shifts, inadequate ventilation, and the ever-present threat of explosions. These conditions were not just physically hazardous but also psychologically taxing, especially for a population largely unaccustomed to industrial labour on such a scale. The physical dangers of munitions workers were significant. Chief among them was exposure to Trinitrotoluene (TNT), a chemical used in filling shells. Women who handled TNT were exposed to yellow powder that was absorbed through the skin and inhaled. This caused a range of health issues. They frequently suffered from skin discoloration, nausea, anemia, and liver damage due to TNT poisoning- a condition that earned them the nickname "Canary Girls" (Woollacott, 99-125: 1994). In extreme cases, exposure could be fatal.

Medical reports from the Health of Munition Workers Committee (HMWC) detailed hundreds of cases. A 1917 medical report found 400-500 cases of TNT-related illness per month at the height of production (British Ministry of Munitions, 1917; Woollacott, 115:1994). In severe cases, the poisoning led to internal organ damage and death. Kitty Wilkinson who worked at a shell-

filling factory in Lancashire wrote a letter to her sister in 1917 describing physical symptoms from TNT exposure and the emotional pressure of handling explosives titled *I Have the Making of a Proper Canary Girl*:

I have to handle the shells so gently, yet I know they could blow the whole of us sky high. My hands are stained yellow again, and the foreman says I've the makings of a proper 'Canary Girl'. They give us milk, but it doesn't stop the sickness. (Letter to her Sister, Imperial War Museum (IWM), Documents. 1834)

Kitty's letter underscores the ever-present danger of explosion and the visible symptoms of TNT poisoning. Despite efforts to offer protective measures, such as milk to detoxify the system, the physical effects remained severe and persistent.

According to a 1917 Home Office report, there were over 1,500 recorded cases of TNT poisoning among munitions workers between 1915 and 1917, with at least 37 fatalities (Home Office, 12-15: 1917). A woman worker at Woolwich Arsenal recalled: "*We used to laugh at the colour of our faces, but some of the girls began to fall ill. The doctors said it was the powder eating into our blood.*" (Imperial War Museum, Oral History Collection, 1916, Cat. 67/12/1).

Factory conditions compound these dangers. Long shifts, inadequate ventilation, and lack of protective clothing increased the risk of injury or illness. Explosions were another deadly threat. In East London, the TNT refinery Silvertown explosion on January 19, 1917, which killed 73 people and injured over 400, brought public attention to the cost of production borne by civilian workers especially women. The Silvertown explosion was not the only disaster of this type. An explosion on July 1, 1918 at the Chilwell munitions factory in Nottinghamshire killed 134 workers and injured 250. The blast was caused by the detonation of eight tons of TNT and of the 134 dead; the majority of them were women (Marwick, 243: 1965). Survivors reported horrific burns and long term disfigurements (Beckett, 211-213: 2006).

In her *Autobiographical Notes* (1920s retrospective), Sarah Jane Bannister's account shows the psychological aftermath of factory incidents. In her memoir titled: *We Lost Two Girls in an Explosion*: "*I remember working till dawn some nights. The factory was cold, then blistering hot. We lost two girls in an explosion. The silence after was worse than the blast*". (Memoir, London School of Economics (LSE) Women's Library, 7MGF/ 19). Bannister's retrospective memoir conveys the emotional aftermath of accidents, as well as the haunting memories left behind. Her later activism in the suffrage movement suggests how wartime experiences contributed to political awakening among working women.

Prolonged exposure to powder dust and noxious fumes led to chronic bronchitis, asthma, and skin rashes. Poor ventilation within crowded workshops exacerbated these problems. Some women complained of persistent coughing and skin ulcers, conditions often dismissed by factory doctors as "hysteria" rather recognized as industrial disease (Summerfield, 75-78: 1984). The women's grievances in the munitions factories led some of them to denounce their working conditions and complain. In her letter: *The Fumes in the Room are Like Gas*, dated March 3, 1918, Annie M., an unidentified munition worker, employed in a TNT shell-filling facility in Midlands District, sent anonymously to a regional Labour Office, later forwarded to the Ministry of Munitions:

Sir, I am writing on behalf of myself and several other girls who are working in Room 6 of the factory. We are told to keep our heads down and do the work, but the fumes in the room are like gas. No windows open. No fans. I have had nosebleeds everyday this week. We need relief. The smell is choking. They say if we complain, we will be put off, but the girls are afraid to speak up. Some faint. Others vomit before the day ends. One girl's eyes turned yellow last week, and they sent her home without pay. Please investigate if you care for our lives. (The National Archives (1918, March 3) Letter from Annie M. to the Labour Office. LAB 2 /456/3).

Annie's letter is a powerful example of firsthand testimony from British munitions worker during the First World War. It is a rare direct plea from a woman worker to the government. It documents environmental neglect where there were no ventilation or safety protocols. It also captures fear of retaliation where workers would risk dismissal if they protested. The most important feature of the letter is that it demands official accountability an unusual and courageous act during wartime censorship. Besides, the letter reveals group solidarity where Annie speaks on "behalf of myself and several other girls," showing early forms of labour advocacy.

Besides many women reported sever back pain, joint strain, and repetitive motion injuries. The heavy shells required strenuous lifting, and women often worked shifts of 12 hours or more. Diaries and letters frequently reference "aching bones" and "dead arms" after extended shifts (Leach, 1917, *Diary*, Imperial War Museum, Doc. 96/4/2).

In fact such letters and testimonies preserved in the Imperial War Museum Archives describe women experiencing anxiety, sleep disturbances and fear of explosions. They are the evidence of the mental and emotional impacts which were rarely acknowledged at the time. Women's injuries in the munitions factories highlight the paradox of wartime mobilisation. While women's labour was indispensable, their health and safety were treated as secondary to production quotas. The "Canary girls", explosion survivors, and those with chronic illnesses became living testaments to the hidden costs of total war. Their sacrifices not only fueled the Allied war effort but also reinforced postwar arguments that women had earned the right to full citizenship.

3- Social Shifts and Gender Expectations

The mass employment of munitions factories during the First World War created significant transformations in social role, gender norms, and public perceptions of femininity and labour. While much of this shift was initially framed as temporary and patriotic, the lived experience of industrial work challenged long-held ideas about women's position in society, sowing seeds for longer-term gender improvement.

Before 1914, most British women-especially from the working classes- were employed in domestic service, textiles, or informal labour. Industrial work, particularly in heavy munitions production, had been almost entirely reserved for men. The urgent need for labour in wartime shattered this barrier. As Braybon and Summerfield (1987) noted, over 900,000 women were working in munitions factories by 1917, altering the visible boundaries of gendered labour (pp. 27-30). The Florence Leach *Diary Entry* (1917) represented her as employed at a shell-filling factory from a working-class background:

It felt odd to be doing what had always been considered men's work. We were in overalls and boots, lifting shell cases, and getting filthy - but we were proud. There was danger, yes, but also excitement. I never thought I'd earn this kind of money or to be taken seriously like this. Still, when the whistle blows, I miss the quite of home. (Imperial War Museum Archives, Florence Leach, *Diary Entry*, March 1917, Documents. 7124).

Leach's diary reflects a mix of pride, displacement, and adjustment to gender role change. It captures the emotional complexity of the wartime experience for women-workers- combining pride in patriotic labour with nostalgia for prewar domesticity. It reflects the gender role disruption caused by the war, as Leach describes her immersion into men-dominated labour environments and her initial disorientation. Her mention of being "taken seriously" suggests the emergence of a new form of woman identity, tied to wage-earning, factory skill, and national duty. *The Diary Entry* reveals both empowerment and paradox, key themes in contemporary gender historiography (Woollacott, 1994 and Grayzel, 1999).

This entry into the industrial public sphere challenged prewar assumption about gender labour. While many women were initially seen as temporary substitutes, their efficiency and adaptability soon proved essential to the war effort. Moreover women themselves expressed a sense of pride and transformation, as work in munitions brought them great financial independence, mobility, and social visibility. The adoption of factory uniforms, the exposure to physical danger, and the performance of skilled mechanical tasks altered the Victorian ideals of women as passive and domestic caregiver. The visibility of women in public spaces- taking trams to factories, handling explosives, organizing shifts- began to affirm their presence in economic and civic life.

However, this shift was also shaped by "class." Middle and upper-middle class women were more likely to engage in voluntary or administrative war work, while working-class women bore the burden of physical labour and exposure to industrial danger (Gullace, 109-112:2002). It is crucial to note that class shaped transformations. For working-class women, factory employment was often an extension of their pre-war labour struggles- an intensification of industrial work rather than a wholly new experience. For middle-class women, however, factory work represented a radical departure from domestic service and symbolic entry into the public sphere. The mixing of classes within factories, where the daughter of a clerck might work alongside a miner's wife, blurred social boundaries and fostered new solidarities, though tensions persisted (Summerfield, 65-70: 1084).

Another setback that characterized this women's entry into the industrial sphere was the wages and the unequal status in the British society. Despite their gains, munitions workers were often paid less than their men counterparts, even when doing similar jobs. Employers and trade unions frequently argued that women were "dilutees," unskilled substitutes for skilled men labour (Grayzel, 123: 1999). This wage discrimination was rationalized as necessary to protect men employment after the war but at the time women's awareness of inequality was expressed in different letters to voice that injustice. Elsie H., a munitions worker in Coventry factory, addressed a letter articulating early critique of wage inequality to a regional labour officer and later forwarded to the Ministry of Munitions:

The women work as hard as the men and for longer hours, yet they earn half. This is an injustice. We do not come here to replace men, but to serve the nation. I ask that the Ministry see that our wages reflect our sacrifice. I have lost three brothers to the war, and I feel it is my duty to be here. But I am tired of being told we are only "temporary hands" when we risk our health and our lives just the same. (Elsie H., *Letter to Labour Office, Coventry*, October 4, 1916).

The historical significance of Elsie's letter challenges the widespread practice of paying women less than men for identical work. Her appeal to sacrifice and duty echoes official rhetoric but turns it against the government to ask for economic recognition and fairness. The reference to her brothers' death underscores the personal loss of war and her sense of moral as well as civic legitimacy. Her letter reflects both anger and pride, combining patriotism with a demand for justice - a recurring theme in women's war- time advocacy.

Another feature that shaped the women wartime work is the change in their social life that contributed to their political awareness. Factory work also redefined women's social lives and leisure. Many found new forms of companionship in factory canteens, women's hostels, and workers' clubs, building friendship outside their families or parishes. The presence of wages also altered domestic dynamics: some women enjoyed a new sense of financial independence purchasing clothes or contributing to family incomes. Yet this newfound independence sometimes led to moral anxieties, with commentators warning about "munitions girls" spending their wages on cinema and dancing.

The visible presence of women in trousers and factory uniforms unsettled older notions of femininity. Some commentators celebrated these changes as a patriotic necessity, while others viewed them as dangerous departures from "womanly" respectability. At the time, newspapers frequently printed caricatures of "munitionettes" as brash and unfeminine, yet patriotic propaganda simultaneously praised them as "heroine of the home front" (Gullace, 186-188: 2002).

This wartime shift in gender identity helped lay the groundwork for postwar suffrage reforms. Despite being encouraged to return to domestic life after the war, many former women munitions workers retained a sense of independence, confidence and civic awareness. Their contribution became a key argument in the fight for suffrage. The Representation of the People Act 1918 was passed as a reward to their sacrifices.

The Parliamentary debates that preceded the formulation of the Act were intense. Yet, some Members considered it as a right for women's war effort. The Liberal Member of Parliament and former Home Secretary, Herbert Samuel advocated that reward: *"It would be a gross injustice to deny the vote to women who worked in our hospitals, who made munitions, who suffered and toiled while their men fought."* (House of Commons Debate on the Representation of the People Bill, June 1917)

Prime Minister, David Lloyd George, praised women services and sacrifices and agreed to suffrage reforms: *"How could we have carried on the war without women? The women's services, the women in the factories- these women have earned the vote."* (Hansard Parliamentary Debates, Vol. 99, 1917). The statement was the prelude to the Representation of the People Act 1918. This legislation was a radical change in British history. It marked the first time women were allowed to vote, though under limited conditions such as age and property qualifications. Women were required to be over the age of thirty and to meet property qualifications such as being householders or married to householders. The Act received Royal Assent on 6 February 1918 transforming the political landscape.

This achievement was heavily influenced by women's contributions during the war, mainly the munitions factories. These women demonstrated their patriotism, competence and capacity for civic responsibility. Prime Minister used this as justification for at least partial enfranchisement: *"It is impossible to deny the franchise to women who have contributed so much to the defense of the realm."* (UK Parliament. 1918) The 1918 Act recognized women's wartime labour as politically valuable, helping legitimize their role in public and political life (Grayzel, 210: 1999).

The visible and essential contribution of women to the war effort was repeatedly invoked in debates surrounding the Representation of the People Act 1918. While historians differ on the extent to which munitions work directly secured partial suffrage, there is no doubt it strengthened the case for women's political inclusion. In a 1917 parliamentary speech, the Prime Minister Lloyd George argued: *"you cannot deny the franchise to those have made munitions, who have risked their lives in the service of the state no less than the men in the trenches."* (Hansard, House of Commons Debates, 29 March 1917, Vo. 92, col. 1101).

The enfranchisement of women over thirty had profound symbolic consequences, signaling a shift in gendered notions of citizenship. Women who had been confined to domestic roles were now, at least partially, recognised as political agents. For many women, however, this recognition was bittersweet. *The Diary Entry* from Florence Leach in 1918 records: *"We are told we have been given the vote. But I cannot help but feel it is not for the likes of me, who labored at the shell bench. It is for the ladies with houses and land."* (Leach Diary, IWM, Doc. 96/4/2). The Act thus both empowered women and highlighted enduring inequalities of class and gender.

The legislation was not a straightforward triumph of feminist activism, nor solely a concession to women's war service; rather, it reflected a complex negotiation between tradition and change. Its legacy lay in the symbolic recognition of women as citizens that would gradually expend into fuller equality over time. While limited, the Act set a precedent. A decade later, the Representation of the People (Equal Franchise) Act of 1928 extended the vote to women on the same terms as men. Historians debate the extent to which women's war service was the decisive factor in 1918, but there is broad agreement that it shifted the political climate decisively in favour of reform (Bingham, 2004).

Conclusion

The experience of women in Britain's munitions factories during the First World War marked a profound transformation in gender roles, labour relations, and social expectations. Entering industrial spaces previously considered the exclusive domain of men, women undertook arduous and dangerous work-handling explosives, operating heavy machinery, and enduring long hours under strict discipline. The dangers they faced were palpable and immediate: the toxic effects of TNT, known as "canary" poisoning; the ever-present risk of accidental explosions; and the long term health implications of chemical exposure. These physical dangers were compounded by the strains of balancing industrial labour with continued domestic responsibilities, a burden largely invisible in official narratives but powerfully conveyed in women's diaries, letters, and oral histories.

Yet, these factories were not merely sites of risk, they were also arenas of empowerment and contested identity. Earning wages, mastering technical skills, and contributing directly to the war effort enabled many women to assert a new sense of agency and competence. While the majority returned to traditional roles after the Armistice, the memory of industrial labour-and the recognition it occasionally won from political leaders-could not be entirely erased. The symbolic and practical contributions of women workers formed part of the broader argument for political enfranchisement, reflected in the Representation of the People Act 1918. As David Lloyd George himself acknowledged, women had "*assumed an enormous share of the burdens necessary to the practical conduct of the war,*" a statement that depicted both gratitude and the shifting political winds.

However, the wartime transformation of women's labour must be understood within its limits. Structural inequalities persisted: wage disparities remained significant, promotions were rare, and postwar demobilisation policies actively pushed women out of munitions work to make room for returning servicemen. Moreover, the public celebration of women's wartime service often masked the state's reluctance to address industrial safety standards or to provide adequate postwar healthcare for those who suffered from workplace-related illnesses.

Ultimately, the story of women in munitions factories is one of complexity of courage and sacrifice, but also of contested recognition and partial reform. It reveals the dual nature of wartime opportunity: opening doors to new forms of participation and visibility, while reinforcing certain boundaries of gender and class. By foregrounding both the lived experiences recorded in primary sources and the socio-political consequences of their labour, historians can better understand the war not only as a military conflict but as catalyst for social change whose reverberations extended far beyond the battle field.

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