EDITH PECHEY AND PROFESSOR CRUM BROWN: A KEY PART OF THE EDINBURGH SEVEN SAGA

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Edith Pechey (1845-1908) was a pioneering woman student who registered at the University of Edinburgh in 1869. Brilliant at chemistry, her cause (discussed below) made the British newspapers and even American magazines. Her nemesis was University of Edinburgh chemistry professor, Alexander Crum Brown. His central role in blocking the academic progress of Pechey and her colleagues has been totally forgotten (or ignored) from accounts of his life. This is the most complete account of the saga to date, constructed largely using contemporary sources and quotes.

Background

On 6 July 2019, seven women collected degree diplomas at the University of Edinburgh (1). An unremarkable event? To the contrary, a *very remarkable* event, as they were collecting the honorary degree diplomas on behalf of seven women students who, 150 years earlier, had tried and failed to graduate with medical degrees from Edinburgh. The seven unsuccessful pioneers have since taken their place in history as the "Edinburgh Seven" but until 2019, justice had not been done. Finally, the prize which they sought was granted in their memory. What has rarely come to the fore is the duplicitous and misogynistic role of Alexander Crum Brown, Professor of Chemistry at the University of Edinburgh, which will be recounted here.

The saga began in March 1869 when Sophia Jex-Blake applied for admission to the University of Edinburgh to study medicine (2). Her initial application was accepted by the medical faculty but was overruled by the university court on the grounds that mixed classes were unacceptable and special classes for one woman impracticable. The wording of this ruling, almost certainly unintentionally, left the door open for a *group* of women to apply. Advertising in Scottish newspapers, Jex-Blake asked if any women wished to participate in a joint submission (3).

Edith Pechey

One of the responses was from Edith Pechey (4). (Mary) Edith Pechey had been born in Langham, Essex, to Sarah (*née* Rotton), a lawyer's daughter who, unusual for a woman of her generation, had studied Greek, and William Pechey, a Baptist minister with an M.A. in theology from the University of Edinburgh (5). Home-educated, she first worked as a governess and teacher.

Interested in a medical career, Pechey had hoped to take the examinations of the Society of Apothecaries. Apothecaries were a recognized Guild with its own Court of Examiners to licence those who wished to dispense the herbal remedies of the time (6). Pechey became indentured to Elizabeth Garrett, later Garrett Anderson (7), who had obtained her Apothecaries' Diploma by the

Figure 1. *Edith Pechey (credit: Thomas Fall, Wikimedia Commons https://commons.wikimedia.org/wiki/File:Edith_Pechey.jpg)*

indenture route in 1865. Worried that other women might follow Garrett, in 1867, the Court of Examiners of the Apothecaries announced that they would no longer accept privately-tutored applicants. As women were barred from attending formal lectures, Pechey's route to a pharmacy-related career was firmly blocked.

Reading Jex-Blake's advertisement, Pechey wrote to Jex-Blake (2):

> Do you think anything more is requisite to ensure success than moderate abilities and a good share of perseverance? I believe I may lay claim to these, together with a real love of the subjects of study, but as regards any thorough knowledge of these subjects at present, I fear I am deficient in most.

Jex-Blake added Pechey's name to those she put forward to the University Court, the others being: Isabel Thorne, Matilda Chaplin, Helen Evans, Mary Anderson, and Emily Bovell. The Court give its approval, and in November 1869, these seven became the first women admitted to a British university. In the 1869 Calendar of the University, official regulations were inserted—reappearing annually for several years—that: "women shall be admitted to the study of medicine in the University" and that: "their instruction shall be in separate classes confined entirely to women."

In a lecture given by Jex-Blake in 1872, she explained how the system worked for the two courses which they took, one being physiology and the other chemistry (8):

> Though the lectures were delivered at different hours, the instruction given to us and to the male students was identical, and when the class examinations took place, we received and answered the same papers at the same hour and on identical conditions, having been told that marks would be awarded indifferently to "both sections of the class,"—this latter expression being, by the bye, repeatedly used during the course of the term by both the Professors who instructed us.

Professor Crum Brown

The chemistry course was taught by Alexander Crum Brown (9). An organic chemist, he had attended the University of Edinburgh, graduating in 1858. After working with prestigious chemists in Germany, Crum Brown returned to the University of Edinburgh in 1863 to accept the position of an extra-academical lecturer in chemistry. Then in 1865, he was appointed a Fellow of the Royal College of Physicians. Crum Brown was promoted to the rank of Professor of Chemistry in 1869, holding the Chair until his retirement in 1908.

Figure 2. *Alexander Crum Brown (credit: Wikimedia Commons, https://commons.wikimedia.org/wiki/File:Brown_Alexander_Crum.jpg)*

Crum Brown was somewhat eccentric. One of his former students, J. S. Flett, reminisced about Crum Brown's classes (10):

> The Professor, Crum Brown, was a charming man and a very bad teacher. … His lectures were very interesting, but one never knew what subject he would take up and he was fond of parenthetical excursions into all sorts of by-ways of the subject that led nowhere and were a complete waste of time for students who were chiefly concerned in passing examinations.

> Considerable and important parts of his subject he forgot to mention and from his discursive habits he wandered hither and thither, and was always behind his programme. Towards the end of the year, he made a frantic endeavor to overtake his arrears and this was a ghastly failure.

Crum Brown had no control over his students as Flett recalled (10):

> Most of his students very soon gave up all attempt to follow him and the class was exceedingly rowdy. Some days the noise and interruptions were so great that the poor professor had to give up and flee. Then in a few minutes he would return with tears streaming down his cheeks and apologise for his inability to control his class. We all loved him.

F. G. Bell, another of Crum Brown's students, also commented upon the disorder of Crum Brown's classes (11):

> … a rowdy, genial disorder prevailed and when the row became intolerable, he would depart to his retiring room. A fervent chorus of "Will ye no' come back again" followed and after a suitable interval, back he came. I think he really enjoyed our bizarre show of affection and teasing.

The students who passed the course were given a Certificate of Attendance, which was required for admission to Medical School. In addition, the four students with the highest marks were entitled to Hope Scholarships. The recipients of the Scholarships received £200 plus free use of the facilities of the University chemistry laboratory for the next term.

The Hope Scholarship

The Hope Scholarships had been instituted by Thomas Charles Hope. Hope had been appointed as the sole Lecturer in Chemistry in 1797 (12). It was in the Spring of 1826, that Hope offered: "a Short Course of Lectures for Ladies and Gentlemen" (13). The presence of women on campus was opposed by many academics, and the gates to the building were closed to the women. Undeterred, Hope converted a ground-floor window on South College Street into a door to enable the women to enter and attend the lectures. In a letter, Lord Cockburn wrote to a T. F. Kennedy (14): "The fashionable place here now is the College; where Dr Thomas Charles Hope lectures to ladies on Chemistry. He receives 300 of them by a back window, ..." The income from these chemistry lectures to women enabled him in 1828 to donate £800 for the founding of a University chemistry prize: The Hope Scholarship.

In Pechey's year, when the marks were announced, she had placed third overall. The two male students above Pechey on the list were repeating the course and were therefore ineligible for the Scholarship. Though the money was welcome, the admission to the University chemistry laboratory was even more important. Women had been excluded from the chemistry laboratories and up to then, Pechey and the other women had to create practical facilities in their lodgings to enable them to perform the experiments.

However, Crum Brown, probably surprised by her outstanding marks, then proclaimed that Pechey was ineligible as she had been taught in a separate class, contradicting his earlier statements (15). It is appropriate to quote Jex-Blake's own observations (8):

> It had occurred to us that if any lady won this scholarship she might be debarred from making full use of it as regards the laboratory, in consequence of the prohibition against mixed classes, but it had been distinctly ordained that we were subject to "all the regulations in force in the University as to examinations," it had not occurred to us that the very name of Hope Scholar could be wrested from the successful candidate and given over her head to the fifth student on the list, who had the good fortune to be a man. But this was actually done.

Crum Brown then contradicted himself a second time by awarding Pechey a bronze medal of the University. This was given to the five students with the highest chemistry marks in the class. By this act, Crum Brown acknowledged Pechey was eligible for this as a class member, despite having said that, in the context of the Hope Scholarship, Pechey was not a member of **The** Chemistry Class.

It was never mentioned anywhere as a reason for disbarring Pechey from the Hope Scholarship, but perhaps Jex-Blake was correct in concluding that the possibility of a women in the chemistry laboratory was unacceptable. Ineligibility for the Hope Scholarship was a means of avoiding this unexpected and unwelcome prospect. This explanation was suggested in a lengthy review article on Pechey's case in the *Daily Review* (Edinburgh) (16).

> The only excuse that we can with the utmost stretch of charity imagine in this case would be that Dr. Crum Brown thought some difficulty might arise respecting Miss Pechey's use of the scholarship (which gives free admission to the laboratory) ... but we are quite at a loss to see how any legitimate argument can be drawn thence to justify Dr. Brown in laying violent hands on a scholarship which has been fairly

> earned by one person for the purpose of presenting it to another.

The issue of Pechey's disqualification rapidly escalated, gaining national attention, with articles in support of Pechey's case appearing in *The Manchester Examiner and Times*, *The Spectator* ("a very odd and gross injustice"), *The Times*, *The Scotsman*, *The British Medical Journal*, and *The Lancet*. It even gained international, attention, becoming the subject of a front-page article, "Women's Rights in Scotland" in the American newspaper, *New Era* (17).

Crum Brown's "Strawberry Jam Labels"

The Hope Scholarship denial affected Pechey alone. However, Crum Brown's other slight, one to all the Edinburgh Seven, had more significant implications. To gain admission to Medical School, as mentioned above, a student had to provide the authorities with a University Certificate of Attendance, to show that they had completed the prerequisite courses.

Crum Brown refused to issue the Edinburgh Seven the Certificates of Attendance for the Chemistry Class. Instead, he offered them written certificates of them having attended a: "ladies' class in the University." These, Jex-Blake derisorily referred to as Crum Brown's "strawberry jam labels" (18), as they were totally worthless in the context of admission to Medical School. Lacking the formal Certificates, the women were barred from the School.

The Edinburgh Seven appealed to the Senate of the University of Edinburgh. By a one-vote margin, the University Senate approved the issuing of University Certificates of Attendance to the women. This was only a partial victory, for at the same Senate meeting, by a contrary margin of one vote, the Senate denied the Hope Scholarship to Pechey.

That the Senate supported Crum Brown against Pechey, resulted in a poem titled: "A Cheer for Miss Pechey" being published in the London review magazine, *The Period*. Verses 1 and 8 are provided here (19):

> Shame upon thee, great Edina! shame upon thee, thou hast done
>
> Deed unjust, that makes our blushes flame as flames the setting sun.
>
> You have wrong'd an earnest maiden, though you gave her honour's crown,
>
> And eternal shame must linger round your name, Professor Brown.
>
> And I blush to-day on hearing how they've treated you, Miss P.,
>
> How that wretched old Senatus has back'd up Professor B.
>
> Ah! the "Modern Athens" surely must have grown a scurvy place,
>
> And the 'Varsity degraded to incur such dire disgrace.

The Surgeon's Hall Riot

Worse was yet to come. In the Fall of 1870, the Edinburgh Seven were members of a mixed class in anatomy which was held at the Surgeons' Hall, outside of the University. All went well until 18 November 1870 when the women arrived to take the anatomy exam.

As the women approached the Surgeons' Hall, they were mobbed by drunken male students. The Hall gates were slammed in their faces as they approached the building. Fortunately, one student, Tom Sanderson, who was already inside, saw their predicament, rushed out of the Hall, and managed to open the gates for them (20).

However, it was the aftermath of the exam which was truly frightening for the women, as Isabel Thorne recounted (21):

> By the end of the examination it was dark and a crowd had again gathered around the gates. We were asked if we would leave by a private door; but we felt it would not do to be intimidated, and relying on the support of our class mates, who formed a sort of bodyguard around us, arming themselves, in default of other weapons, with osteological specimens, we passed quietly through the mob, only our clothes being bespattered with the mud and rotten eggs thrown at us.

Figure 3*. The Surgeons' Hall, ca. 1890. (credit: Wikimedia Commons, https://commons.wikimedia.org/wiki/File:Surgeons_Hall.jpg)*

The attack on the women was disavowed the next day by many of the medical students, casting the blame on chemistry students and, tracing it back to their chemistry professor, Crum Brown (22):

> Are only the hot-headed youths to be blamed who hustle and hoot at ladies in the public streets, and by physical force close the College gates before them? Or are we to trace their outrageous conduct to the influence of the class room, where their respected professor meanly takes advantage of his position as their teacher to elicit their mirth and applause, to arouse their jealousy and opposition, by directing unmanly innuendos at the lady students? ... The truth, however, is that the rioters were called together by a missive, circulated by the students in the ***Chemistry Class of the University*** [bold italic as in the original letter to the Editor] on Friday morning.

These authors have pointed out elsewhere that, just as some male academics were opposed to the advancement of women, there were others who were highly supportive of the cause of women rights (23). In the context of the continuing attacks on the women, it was not a chemist, but Robert Wilson of the Royal Medical Society of Edinburgh, who came to their support. Following the riot, Wilson sent a letter to Pechey (24):

> I wish to warn you that you are to be mobbed again on Monday. A regular conspiracy has been, I fear, set on foot for that purpose. … I have made what I hope to be efficient arrangements for your protection. …I had a meeting with Micky O'Halloran who is leader of a formidable band, known in college as "The Irish Brigade" and he has consented to tell off a detachment of his set for duty on Monday. … May I venture to hint my belief that the real cause of the riots is the way some of the professors [especially Crum Brown] run you down in their lectures. However, as I tell you, you and your friends need not fear, as far as Monday is concerned. You will be taken good care of.

In fact, the "Irish Brigade" continued their escort duties of the women between accommodations and lectures for some time afterwards. Michael O'Halloran, a male medical student at the time, has been overlooked as a hero of the event, having chosen to ally himself and his "Brigade" with the women students, protecting them from what could have been severe assaults. At the time, it was possible for medical students to spend a year at different university medical schools. It seems highly likely that O'Halloran was the Irish student who was noted as having come to Edinburgh from Queen's College, Cork (25). His name is listed in the Queen's College, Cork, Register as having received the degrees of M.D., M.Ch., Dip.Obs., and M.A.O. However, the authors were unable to find any details of O'Halloran's later life.

Several questions arise. Why did the Irish students seem to have such a cohesive identity? Was it that they were socially-excluded, perhaps on the basis of religion? It is curious why the "Irish Brigade" would be particularly supportive of these women. The culture of students in Irish medicals schools was no less masculine than elsewhere (26). Nor was the situation of women's education in Ireland any better than elsewhere in the British Isles. Though Alexandra College, Dublin, opened its doors in 1866 to offer advanced education to young women, it was not until 1879 that women were admitted to university in Ireland (27). However, it is also true that medical schools in Ireland had a more favorable attitude towards the admission of women than was the case in Scotland (28). Perhaps his support of women was more on the personal level. Sadly, we will never know what caused the noble gesture of O'Halloran and his band in defending the women.

The Final Insult

Despite several other attempts to impede their path, the women had passed all the examinations by 1872. However, the University of Edinburgh refused to grant them degrees. The group then took legal action against the University and, on 26 July 1872, initially won their case, the judges being scathing in their condemnation of the University (29). Unfortunately, on appeal in 1873, it was ruled that women should never have been admitted to the University in the first instance, and therefore could not graduate. Moreover, the women were compelled to pay all the legal costs, including the University's appeal, which amounted to the very significant sum at the time of £2,000. The "Committee to Secure a Complete Medical Education for Women in Edinburgh" came to their rescue, asking the public to provide financial aid and moral support, both of which were generously forthcoming.

As the University of Edinburgh had refused to issue them degrees, the British Medical Association refused to register the women as qualified doctors. In fact, it was not until 1889, that the Universities (Scotland) Bill was passed in Westminster which finally required the Scottish universities to admit and graduate women.

London School of Medicine for Women

Though these women had failed in their attempts for higher education in Edinburgh, from this setback was to

come a significant advance. It was the rejection from Edinburgh which caused six of the Edinburgh Seven, including Pechey, to travel south and push for the formation of a medical school exclusively for women. This endeavor resulted in the founding of the London School of Medicine for Women (LSMW), which opened its doors in the Fall of 1874 (30). Thus the founding of the LSMW can be said to be the one fortunate outcome of the rejection. (Previously, these authors have described the pioneering women who taught chemistry at the LSMW (31).)

Pechey's Later Life

And what became of Pechey? In 1877, she obtained a medical diploma from the Irish College of Physicians and, in the same year, an M.D. from the University of Bern, Switzerland. In October of that year, it was as Dr. Pechey that she delivered the inaugural address at the LSMW (5).

For the next 6 years, Pechey practiced medicine in Leeds, specializing in abdominal surgery. Then in 1883, she took up an appointment as Senior Medical Officer at the new Pestonjee Hormusjee Cama Hospital for Women and Children in Bombay (now Mumbai). While there, Pechey married Herbert Musgrave Phipson, taking the name of Pechey-Phipson. She wrote to her maternal aunt (32):

> …We have known each other so well, and worked together in so many things these five years, that there is no reason to wait for anything, and we are getting older every day. I am four years older than he is, at which I know you will shake your head, but the real objection to the marriage is that he is so unselfish that there is a great danger of my becoming a mass of selfishness… What seems more certain is that we shall be very happy together.

Accompanied by her husband, and in poor health, Pechey returned to Britain in 1905, becoming active in the Leeds suffrage movement. In 1907, she needed surgery, the surgeon being May Thorne, daughter of Pechey's former classmate of the "Edinburgh Seven," Isabel Thorne. Though the operation was successful, Pechey never fully recovered and she died in 1908 at Folkestone, Kent.

Commentary

Though the Surgeon's Hall Riot has singled out students of the University of Edinburgh for behavior which is beyond our imagination today, it needs to be realized that violent misogynistic—though not as personal—riots occurred at other universities in Britain. In 1913, male students at University College, Bristol, set fire to the "Votes for Women" office in the city and watched it burn to the ground. Their student newspaper of the time expressed its whole-hearted support for the rioters and the subsequent incineration (33). Then in 1921, about 1,000 male Cambridge University students rioted outside the Newnham (women's) College gates, to celebrate the defeat of the proposal to allow women students to receive Cambridge degrees (34).

Did the situation improve for women students at the University of Edinburgh? Apparently not. A writer commented upon the treatment of Edinburgh women students in 1896 (35):

> It is unfortunately a matter of not infrequent observance that the treatment of lady students at the hands of their *confrères* has been utterly out of keeping with the cherished canons of gentlemanly conduct. It is a painful fact that ever since the portals of our University were opened to the lady students, as the result between sweet reason and dogmatic rigidity, they have been the victims of gratuitous annoyance. Their entry into the class-rooms opens the floodgates of British chivalry. The tapers and tadpoles of the back benches begin to howl and screech with all the lustiness of rural louts, and seem to be as much amused as if they saw a picked company of the far-famed Dahomeyan Amazons march in all the glory of their military attire.

And what of Crum Brown? The incident did no long-term harm to Crum Brown's reputation. No mention of the events of 1870 could be found in any obituary, including the comprehensive account of his life in the *Journal of the Chemical Society* (36). In fact, a 2018 article in *Chemistry World* on the chemical contributions of Crum Brown, noted that he was "widely cherished by students" (37)—though this comment obviously did not refer to female students.

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