

Saunders and Son

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Moderately (♩ = 150)

The musical score is written in bass clef with a 3/4 time signature and a key signature of one flat (Bb). The tempo is marked 'Moderately' with a quarter note equal to 150 beats per minute. The lyrics are: He wan-ted to be an in-struc-tor of mu-sic, a tea-cher of voice and of flute. He fol-lowed his fa-ther's ad-vice to pro-ceed by a some-what cir-cu-i-tous route. Pro-tec-ting his fu-ture, he trained as a che-mist. He earned a To-ron-to de-gree, Then, in the years af-ter Vic-tor-ia's first ju-bi-lee, stud-ied for his P h. D. He stayed in the States for a while to teach che-mis-try, then turned to mu-sic a-gain, With stu-dies in New York and Bos-ton be-fore co-ming home to find stu-dents to train. His tea-ching could not pay his bills in To-ron-to. In Ot-ta-wa, too, work was rare. His fa-ther in-sis-ted he come back to sci-ence: he'd spent all those years to pre-pare.

He wanted to be an instructor of music, a teacher of voice and of flute.

He followed his father's advice to proceed by a somewhat circuitous route.

Protecting his future, he trained as a chemist. He earned a Toronto degree,

Then, in the years after Victoria's first jubilee, studied for his Ph.D.

He stayed in the States for a while to teach chemistry, then turned to music again,

With studies in New York and Boston before coming home to find students to train.

His teaching could not pay his bills in Toronto. In Ottawa, too, work was rare.

His father insisted he come back to science: he'd spent all those years to prepare.

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From Devon to Canada West in year twelve of the reign of Victoria, the Queen,
His father was brought as an immigrant's child. William Saunders was not quite thirteen.
He learned to identify, dry, store, reconstitute, heat, weigh, extract, and dilute
The whole of the range of *materia medica*: flower, leaf, seed, stem, and root.
Not being content to know only those plants he required in the pharmacy trade,
He grew to be expert in those that were useful for fiber, food, windbreak, and shade.
At last, the Dominion of Canada said, on the verge of his fiftieth year,
To study how other lands set aside farms for research. And should we do that here?

He said that we should, the Prime Minister listened, and Parliament soon passed the bill.
Appointed director, he worked from the Central Farm, three miles from Parliament Hill.
There Saunders ran tests in Ontario's climate, but other tests needed instead
The much fiercer climate of three prairie stations: Lacombe, Brandon, Indian Head.
In prairie conditions, he showed, for example, a windbreak alongside a field
Of oats, to the north or the west, gives a crop nearly double the usual yield:
Not only does wind, when unfettered by trees, cause a field to quickly dry out,
But wind dumps its snow on the lee side of the trees; this, in melting, will help seeds to sprout.

Among all his projects, the one of most value, should ever success be complete,
Was finding a faster-maturing replacement for Canada's most-planted wheat.
We grew Halychanka, Ukranian bred, but in Canada known as Red Fife;
The frost on the prairies too often disrupted maturing plants' cycle of life.
With Hard Red Calcutta, a faster maturing but fragile wheat, Red Fife was crossed,
In hopes that this hybrid of two different wheats would be strong and mature before frost.
Between his directorship and such key projects, he had too much work to get done.
He made an important appointment: his chemistry Ph.D., flute-playing son.

So, Charles Edward Saunders, who'd worked on plant hybridization since he was a boy,
Now laboured officially in that capacity, in the Dominion's employ.
Before his arrival, they'd tried mass selection for similar form. That was crude:
Despite years of effort refining their hybrids, unwanted traits still would intrude.
But scholars in Europe had just rediscovered and reconfirmed Mendel's great work,
And Bateson from Cambridge had spoken about that the previous year in New York.
Both father and son had attended, and on this prospectus the two were agreed:
To be homozygous, their new wheat variety had to descend from one seed.

So, now the son's task was to choose the most promising single plant under his care,
But promise in wheat could be hard to determine while kernels to grind were still rare.
Each kernel, each seed, could form limited replicates: thirty to forty or so,
And having enough to grind flour meant waiting three harvests. That pace was too slow.
In future years there would be small-scale baking tests. Saunders required instead
A quick way to tell if a candidate wheat could be stronger than Red Fife for bread.
He forged a new method to assay for protein. A sample of grains, very few,
Was placed in his teeth, and he'd choose the plant bearing the wheat most elastic to chew.

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In 1903, he selected four plants, the most promising ones of the lot,
And set out their seeds the next spring, clearly labeled, each source in a separate plot.
Then two were selected, the others rejected. By 1906, enough grain
Had been reproduced for a small baking test. The next year, only one would remain.
At Brandon and Indian Head, on the prairies, Marquis and Red Fife were compared.
The new wheat was earlier and more productive. Success could not yet be declared,
But 1908 saw the first distribution for family farmers to test,
And fifteen years later, Marquis filled nine tenths of the land sown with wheat in the West.

Has there ever been a more wonderful title for any official to bear
Than that of the Dominion Cerealist? All the grain of the land in his care!
Besides other wheats, there were barley, rye, sunflowers, peas, flax, and oats to explore.
The surplus exportable due to his efforts helped Britain survive the Great War.
Despite his successes, the government skimmed on equipment, assistance, and pay,
Demanding completion of forms to establish that he had not wasted the day.
And, forced to report to his father's successors, who would not give Saunders their trust,
Denied leave to travel to Winnipeg for an award, he retired in disgust.

Let those who routinely denounce nepotism reflect upon our Central Farm
And state if the circumstance of this appointment, on balance, brought good or brought harm.
As his father's protégé, Saunders had time to design, to improve, to invent,
But as just one more civil servant he had to account for how minutes were spent.
The public, incensed at his minuscule pension, when once the amount was made known,
Demanded much more for this man, from whose seeds the success of the prairies was sown.
It took three years' protests, but finally Parliament granted five thousand per year.
Retired in comfort, he lived in Toronto, where there was much music to hear.

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