How does a 'West End" girl graduating from
King George High School in 1921
Become a Queen?

Meet Elsie MacGill

Helen Gregory MacGill with Helen and Elsie (Vancouver)

Elsie Gregory MacGill

Daughter of

James Henry MacGill

And

Judge Helen Gregory MacGill

(First female judge in the province of British Columbia.)

And younger sister to

Helen Elizabeth Gregory MacGill

Graduated in 1922 from

King George High School

In Vancouver's west End

King George High School - Burrard and Nelson Street - Vancouver, B.C.


Elsie McGill
King George High School
Class of 1921

Elsie MacGill

How does a King George High School graduate from Vancouver's West End become a Queen?

By Fred Hume
2023

Postcard by
Copper Catkin

It could be said that if your face and accomplishments appear on a stamp or impressive commemorative coin, you have made the grade. Your accomplishments are of national or even international acclaim. This is in fact the case with Vancouver – born and raised "war hero" Elsie MacGill who today you find on an attractive stamp and impressive commemorative 2023 "Loonie".

The headlines in 1930 read, "She's the Only Girl in North America Who Has Been Granted This Airy Degree", that being a Master's of Science in Aeronautical Engineering. This was followed by her Doctoral studies at MIT, all accomplished despite compromised health.

Notwithstanding her being a pioneering woman achieving these degrees, it was her work during the Second World War that vaulted her into public attention through articles, biographies, films, even a comic book, all emanating from the brilliance and curiosity of this young woman from a close-knit family living on Harwood street in Vancouver's West End. As the war began, and now chief Aeronautical Engineer at Canadian Car Works in Fort William (now Thunder Bay, Ont.), Elsie designed and tested the new "Maple Leaf Trainer" aircraft, the first plane designed by a woman.

At the same time the media announced 35-year-old Elsie was honoured as the first woman to be admitted to the membership of the Engineering Institute of Canada and in 1940 the first woman in Canada admitted membership in the Association of Professional Engineers.

When her company (Cancar) was selected to build the Hawker Hurricane fighter plane for the R.A.F. to battle the Luftwaffe over the English Channel, Elsie led her team, streamlining operations to very quickly build these planes while improving their design, shipping them out at a rate of 23 per week…"She has done a job experts said couldn't be done." At the same time, she was responsible for the design of aircraft de-icing equipment as well as devising and conducting revolutionary stress tests, for which she won in 1941 the Gzowski medal. All this accomplished for the first time by a woman. This successful production gained for her the nickname "*Queen of the Hurricanes*" and it was opined, "This frail little woman (from Canada) who must walk with a cane, yet played a significant role in Britain's valiant war effort."

Elsie and her sister Helen grew up in Vancouver's West End the daughter of pioneering female judge and suffragette, Dr. Helen MacGill – the first woman to receive an Honourary Doctor of Laws degree from UBC. Young Elsie began her public schooling at Lord Roberts elementary at Nicola and Barclay (still standing) later to become an honours student at the West End's King George High School on Burrard street, graduating in 1921. The MacGill sisters experienced the finest of early Vancouver life both influenced by and gaining life experience through there successful parents while enjoying such activities as being taught to swim at English Bay by Joe Fortes and taught art by a struggling Emily Carr.

Both Elsie and her sister were impressive students at UBC, both active in student affairs with Elsie being the only girl in UBC's Faculty of Applied Science. However, after two years Elsie found that UBC could not offer the precise engineering courses she was interested in, "UBC does not offer her wide enough scope in electrical work" were the words of the media at the time. Meanwhile her family had ties and tradition with the University of Toronto so Elsie left UBC in 1923 to attain her Bachelor of Science degree at the U. of T. Despite being a rare female within a male domain, her nature, determination and

skills prevailed as she went on to achieve her “pioneering” Master’s degree in Aeronautical Engineering at the University of Michigan. She received high praise at Michigan as it was stated by the school she was, “...very likely...the only one in the world at this present time...” to achieve this particular degree.

During the war Elsie received public accolades such as, “110 pounds of charming genius” and “continues to overcome obstacles and sweep aside taboos”. She was cited for employing hundreds of women at Cancar which was later acknowledged as the showcase of Canadian wartime production. Following the war, she served as Canadian Technical Advisor at the United Nations and assisted in drafting international worthiness regulations for the design and production of civilian aircraft.

Elsie gradually became increasingly interested in the woman’s movement, inspired by the work of her mother and grandmother. She became president of the Canadian Federation of Business and Professional Women’s Clubs and in 1967 was named one of the commissioners on the Royal Commission on the Status of Women. She also wrote a book on the life of her mother, “My Mother the Judge” and in 2008 an academic biography was written on the life of Elsie titled “ Her Daughter the Engineer.”

Over her life Elsie received many honours beginning at age 35 in 1940 when named Vancouver’s Woman of the Year through to Hall of Fame inductions, numerous awards and medals and having two schools named after her. In 1971 she was named to the Order of Canada, awarded an Honourary Degree from the University of Toronto in 1973 and the Honourary Alumnus Award from UBC in 1975... and of course Canada’s stamp and commemorative coin.

Elsie died in 1980 at age 75 while visiting her sister Helen in Cambridge, Mass.

In 2006 a Vancouver Sun article announced, “Vintage plane sells for three million dollars: Microsoft billionaire Paul Allen buys restored 1941 Hawker Hurricane.” A rare piece of Canadian history built at Thunder Bay was after years of painstaking reconstruction bound for Allen’s Seattle - area collection. This is one of Elsie’s planes! The legacy of Elsie MacGill lives on!!

The U.B.C. "Fairview Shacks"

After graduating from K.G., Elsie at the age of 16 enrolled at the University of British Columbia.

At this time U.B.C. occupied facilities (nicknamed The Fairview Shacks) adjacent to the Vancouver General Hospital. In the 1921-22 year the "Shacks" were facing extremely overcrowded conditions as the enrollment had reach 1200 This led to a campaign to "Build The University" at Point Grey which climaxed in a parade now known as "The Great Trek'

Elsie completed two years here, then left to go to the University of Toronto because U.B.C. did not offer a wide enough scope in electrical work.

Fair Science Student at "U" Dons Overalls; Works Along With Sterner Sex

MISS ELSIE MACGILL, first-year science student at the University of B. C., is a girl with a definite ambition in life and holds the distinction of being the only girl in the faculty of applied sciences at the university. She is taking the course in electrical engineering and, clad in grease-covered overalls, is at work every day in the laboratories of the class.

Miss Elsie MacGill is on the executive of Science '26 as the class reporter to the "Ubyssey," the university paper, and is well known in Vancouver as the daughter of Mrs. (Judge) Helen G. MacGill of the juvenile court. She is a native daughter of B. C., born and raised in Vancouver.

Beginning her education at the Lord Roberts public school, Elsie continued her studies at King George school, where she matriculated in June, 1921. Last year she was well known and liked at the U.B.C. as a member of Art '25. A hard worker, a good speaker and a broad-minded girl, she did much on the class executive to earn the respect and favor of her class mates.

ON EXECUTIVE

This year the men of Science '26 are pleased to give her the one position on the executive to which she is most suited.

For some time Miss MacGill has been interested in electrical work and plans to earn her B.Sc. as an electrical engineer. She was the first girl in Vancouver to apply for a radio license. Moreover, she made and assembled her own radio set.

Donning her overalls, she works side by side with the boys, handling her tools with as much ease and dexterity as the boys themselves. Although she feels tired at the end of the day, she is getting hardened to her work, and states that she has never been in better health. All her work is interesting, she states, but she prefers the machine shop to the foundry and forge, since it is more useful in her electrical work.

HAS NO TERRORS

She does not try to escape the dirt, smoke and grease of the shop work, but wears overalls, a cap and gloves, and is prepared to face any trials her course offers.

Prof. Gill of the university and the instructors are pleased with her work, and state that Miss MacGill is one of the best girl students that they have ever instructed in this work. Miss MacGill says that although she wants to complete her education in B. C., the present course at the U.B.C. does not offer her a wide enough scope in electrical work. If, however, the university is completed at Point Grey, the new equipment will allow her to graduate here. On being asked what she intends to do on graduating, she said she would continue her electrical work, devoting much time to the transmission of waves in the ether.

University of Toronto

In 1923 Elsie was admitted to the
University of Toronto's
bachelor of Applied Science program.

In 1927 she graduated with a bachelor of Science degree in Electrical Engineering.

She was the first woman at the University of Toronto to do so.

After a year in the employ of the VanAusten Co., Pontiac, Michigan, as a junior engineer at the age of 22, Elsie MacGill entered the University of Michigan for postgraduate work in aeronautics. It was there in 1929, that she was stricken during the infantile paralysis epidemic. Writing her examinations in an Ann Harbor hospital, she took her master's degree in aeronautical engineering and spent the next three years in a wheel chair at home in Vancouver's West End. She has required the aid of a cane ever since.

She's the Only Girl in North America Who Has Been Granted This Airy Degree

MISS ELSIE GREGORY MacGILL of Vancouver can now write the letters M.S.E. after her name, besides the more familiar B.A. and B.Sc., for she graduated not long ago from the University of Michigan in Ann Arbor, with the degree of Master of Science in Aeronautical Engineering.

Elsie MacGill

When Miss MacGill entered the graduate school of Michigan she already had the degree of Bachelor of Science from the University of British Columbia and another degree in engineering from the University of Toronto.

Professor Felix Pawlowski, who holds the chair in aeronautical engineering in the University of Michigan, says that during her course at Ann Arbor Miss MacGill displayed not only admirable qualities of character but also "a rather unusual ability for engineering in general." Her work was of such high standing, and she was so generally appreciated by her professors, that in spite of the fact that her health broke down a month before the end of the scholastic year, thus interfering with some of the duties assigned to her, "everybody, nevertheless, was satisfied that she should receive the degree."

The most interesting fact in connection with this brilliant Canadian girl is that she is the first woman on this continent to hold a degree in aeronautical engineering, and "very likely," says Professor Pawlowski, "the only one in the world at the present time."

"According to my knowledge," the professor adds, "there are only two women with proper theoretical training in Europe—one in England and the other in Poland—engaged in aerodynamic research of rather mathematical character. These two women, however, have no degrees in aeronautical engineering."

The Leader-Post Regina, Saskatchewan 4 Jan. 1930

The Vancouver Sun 2 June 1939

Miss Elsie MacGill, daughter of Judge Helen Gregory MacGill, who has a brilliant record in the field of aeronautics and has held important positions in connection with her work, which is unique in that she is the only woman in Canada thus employed, has gain made an outstanding step in her career. She has been appointed chief aeronautical engineer for the Canadian Car Company at Fort William, Ontario.

THE PROVINCE
WEDNESDAY, DECEMBER 13, 1939

Vancouver Girl Designs New Plane for Primary Training

Elsie MacGill, Canada's Only Woman Aeronautical Engineer, Does Unique Work.

Once again one of Canada's most brilliant young women has added to her outstanding achievements in what has been, primarily, a masculine sphere. Elizabeth Gregory MacGill, B.Sc., M.Sc., Ph.D., brilliant daughter of Dr. Helen Gregory MacGill of this city, and first woman in the world to receive a master's degree in aeronautical engineering, has designed and built a new plane.

Pilots who have tested Miss MacGill's plane, which she calls the "Maple Leaf Trainer," applaud its merit. It is a two-seater machine for primary training.

The brilliant young scientist's plane is silver-colored, appointed in black. Chinese red covers the nose and follows in a slim line the black stripe down each side, and a maple leaf insignia is painted on the fin.

MISS ELSIE MacGILL.

The young designer has been invited by the Engineering Institute of Canada to present a paper at its annual meeting to be held in Toronto on February 8 and 9. She is the first woman to have been honored by such an invitation.

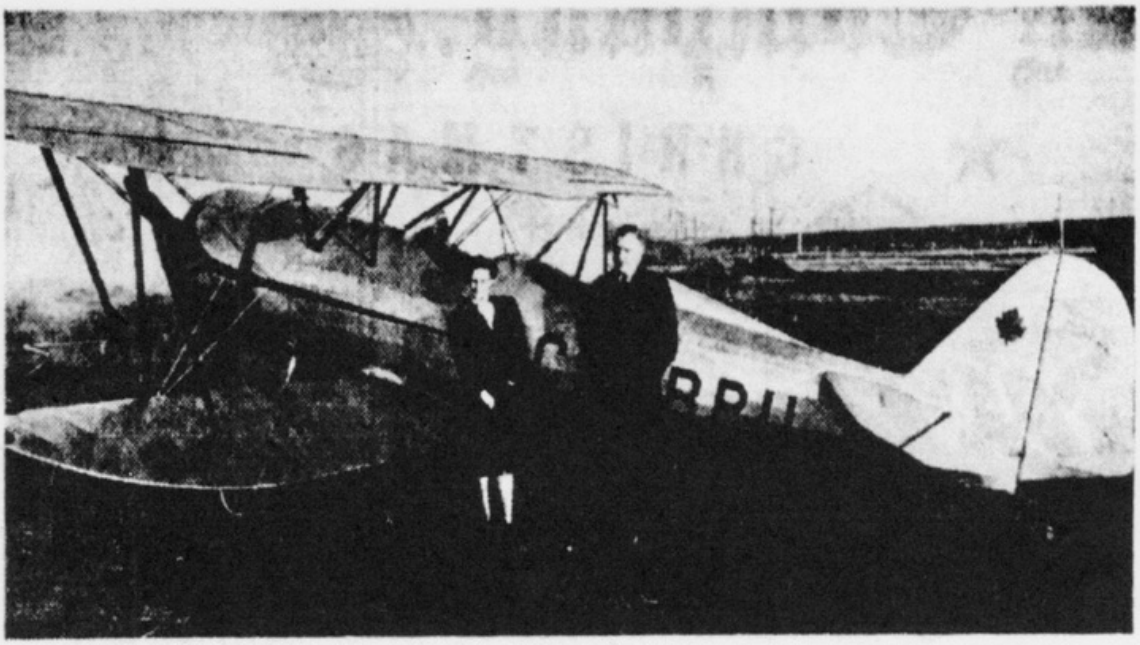
HAS HAD A BRILLIANT CAREER.

Elsie MacGill was an honor graduate of King George High School, and attended the University of British Columbia before continuing to Toronto, where she was the first woman in Canada to take a degree in electrical engineering.

In 1929 she received her master's degree in aeronautical engineering from the University of Michigan. In 1938 she was the first woman in Canada to be admitted to corporate membership in the Engineering Institute of Canada.

Her many Vancouver friends will remember Miss MacGill as a school girl in the city, and will recall the near-tragedy which almost concluded her spectacular career as a student when she was stricken with infantile paralysis not long after receiving her master's degree. In spite of her long-drawn-out ailment, she held an important engineering position in Montreal, at the same time writing several internationally recognized periodical articles.

The Province 15 Dec 1939



DESIGNED BY CITY GIRL—Here is the new primary trainer designed by Elsie MacGill, Vancouver girl, who is now chief aeronautical engineer for Canadian Car Works. A two-place biplane with clean lines and good performance, it was produced at the company's plant at Fort William. Miss MacGill is shown beside the plane with E. J. Soulsby, plant superintendent.

The Vancouver Sun 14 Sept 1940

Professional Engineers Admit Elsie MacGill, First Woman

TORONTO, Sept. 14.—Elizabeth M. G. MacGill, chief aeronautical engineer of the Canadian Car and Foundry Company at Fort William, has been admitted to membership in the Association of Professional Engineers of the province of Ontario, the first woman in Canada to be so registered.

Announcement of Miss MacGill's admission to membership in the association was made today by W. McKay, secretary-treasurer of the organization.

Miss MacGill has the distinction of being the first and only woman of Canada, and perhaps of the world, to have designed a new and successful type of airplane, known as the "Maple Leaf Trainer II." It was designed as a primary training machine.

She is an associate member of the engineering institute of Canada and at the institute's February convention here she read a paper on "Practical Forms of Flight Test Reporting."

Miss MacGill is the daughter of Helen Gregory MacGill, judge of the Vancouver Juvenile Court. She is a Bachelor of Applied Science in Engineering from the University of Toronto, a Master of Science in Engineering from the University of Michigan and has taken two years post-graduate study at the Massachusetts Institute of Technology leading towards a doctorate degree.

The Vancouver Sun 26 Feb. 1941

Because she has such an important position in Canada's largest airplane factory, the Official Secrets Act won't let Miss Elsie MacGill talk much about it. However, Miss MacGill says that she believes Mr. Howe, minister of munitions and supply. If he reports that the plant of which she is chief aeronautical engineer is turning out 15 Hurricanes a week, well, she says, "it must be so."

When asked, Tuesday, upon her arrival here, if she would like to go to England, Miss MacGill said yes. Today she commented that she sees little chance of getting there, as she must get back to her job in Fort William.

Miss MacGill is spending a few days with her mother, Dr. Helen Gregory MacGill.

In 1940 the Canadian Car and Foundry Company at Fort William has been given the task of producing the Hurricane fighter plane foe England. The company gives the job to Elsie who will turn the facility of 200 employees into Canada's largest airplane factory.

HAWKER HURRICANE

“NO JOB FOR A WOMAN”

Jack Mosher writes a story in May of 1941 about Elsie for This Week Magazine which is a weekend color supplement in newspapers all over the United States. Remember the U.S. has not yet entered the war.

The Pittsburg Press

Spokane, Washington


THIS WEEK
THE SUN
AND THERE'S LAUGHTER...FOR YOU...ON PAGE 5

British Combine

"NO JOB FOR A WOMAN"

Isn't it? Meet Elsie MacGill, chief engineer of Canada's great Hurricane Fighter factory. You will learn why a crippled girl bosses one of the biggest warplane plants in all the British Empire — and you'll like the girl

by Jack Mosher

Associated Screen News, Ltd.

Here's Elsie — and above are the ships she turns out by the hundred

It is a far cry from the air war now raging Over Britain to a quiet office in Fort William, Canada, where a girl sits at a desk, poring over blueprints, now and then resting her eyes by gazing out the window toward the flat-topped mountains that guard the head of Lake Superior.

Seeing her sitting there ---- a tiny, birdlike woman, weighing scarcely a hundred pounds ---- you would never believe that she is chief engineer of a plant that turns out one hundred Hurricanes a month for the fighter pilots of the R.A.F.

But that would be because you do not know Elizabeth Gregory MacGill. You do not know that this thirty-four-year-old girl, who runs her own home and who argues with the butcher about the tenderness of the steak, can talk aeronautical technicalities that are likely to stump even the head men of the profession.

Even more amazing is the fact that this frail girl who turns out 400-mile-an-hour combat jobs to help stall Germany's air blitz on England, couldn't catch a streetcar if she tried. Seven years ago she was stricken with infantile paralysis --- and she has walked with crutches or a cane during most of her profes-sional life.

Yet she has done a job that experts said couldn't be done. A few months after the start of the war, Elsie ---- that's what the men call her ---- was handed a set of 3,600 blueprints and told to start making Hurricane fighters. Now, you can't just take a batch of blueprints and start turning out finished planes. First comes the gigantic task of

designing and making the jigs and other machine tool that are used to fashion the 25,000 parts of the finished plane. Elsie's task was further complicated by the fact that the Canadian Car and Foundry plant, of which she was chief engineer, was not meant to make planes. It had begun its manufacturing career making boxcars for the Canadian National Railway. But that didn't faze Elsie for a moment. During the year that followed the arrival of the blueprints, she and a skeleton staff of 120 went to work installing new equipment, revamping old equipment and instructing sailors and timber cruisers and farmers how to make airplane parts. (Fort William, one of Canada's twin grain ports at the head of the Great Lakes, had never been a real industrial center and therefore had few experienced factory workers.) Everything considered, you can imagine how jittery Elsie felt when she announced early in January, 1940, that they were about ready to start production at this Canadian branch of Britain's Empire-wide war effort.

Today there is ample proof that she had no reason to feel that way. The skeleton staff of 120 has grown to more than 4,500. The initial order for forty planes has been increased to an unlimited number. Early last December, when only sixty planes had been assembled, crated and shipped to England, the plant had already begun to turn out Hurricanes at the rate of six a week. Today that figure has jumped to twenty-three a week, and it looks as if it will increase steadily as Elsie and her associates overcome remaining difficulties.

Incredible Precision

Hurricanes made in Canada must meet the same rigid British Air Ministry requirements as those made in England, and one of Elsie's first big scares was the regulation regarding interchangeable parts. This specified that many of those 25,000 parts that go into a modern fighter plane must be made so precisely in any one plane that they could be taken out and fitted into another plane, Canadian-made or British-made.

"Poor old P-5170," she said, giving the serial number of the first Canadian-built Hurricane to reach England. "She got the acid test. They took a wing off her and put it on a British-made job. Then they took a chunk out of her belly and fitted in a chunk made in England."

In both cases they fitted perfectly.

It's hardly surprising that they did, though; not when you consider the ridged standards that Elsie MacGill sets for herself in the job --- and her personal life, too. For instance, knowing that she never goes out without cane or crutches and must often remain in bed for weeks at a stretch, you no doubt picture her being driven to work each morning with a chauffeur at the wheel. That isn't the case at all. She wants to get a pilot's licence someday and meanwhile takes out this suppressed desire on her car, driving it to and from the plant at a clip that makes Fort William cops shudder.

"She also serves the best cigars west of Montreal," Dave Boyd told me. "But Elsie never smokes herself --- she chews."

Boyd, who is built like a boiler and has steam up most of the time, can say things like that about Elsie, because he has worked alongside her ever since she first came to Fort William three years ago. He also knows better than to take her arm on stairs or crossing a tough patch of ice. If she needs his help she'll take his arm.

"I treat her just like a man, " he says. "She likes it better that way."

There is good reason for Elsie to feel perfectly at home doing a man's job. In fact, she doesn't think of it as a man's job at all, because she comes from a long line of women who have invaded men's fields. Her grandmother stumped for women's suffrage back in the days when that was the most serious problem before the house. Her mother is a judge in Vancouver's juvenile court. Elsie was born in that city. Her father was a Vancouver lawyer.

"I was just an average, snippy little girl" she told me. "with a single pigtail." Asked how she began to mount the ladder leading to her present exalted position in the world of aeronautics, she explained logically enough, " I just got interested."

Only Girl in Class

At first, she was interested in radio, which was quickly coming into vogue when she was in high school, and that led to taking the course in electrical engineering at Toronto University. She had to put up with quite a bit of kidding because of being the first and only girl in a class of 130 men.

When she graduated she showed characteristic directness in answering ads for jobs. "I took the one that offered most pay," she told me, "because I'm half-Scotch, you know."

That was at Austin Aircraft Company, in Pontiac, ten eventful years ago. While holding down her job there, she took a postgraduate course in aerodynamics at the University of Michigan.

It was just a few weeks before the final exams that she came down with polio. "I was so despondent," she told me, "that I didn't want to live. But I did."

She also managed to write her exams, in an Ann Arbor hospital. Passed them, too ---
And became the first woman ever to graduate from Michigan in aerodynamics. When she went home to Vancouver --- and to bed --- she was the busiest sick lady anybody had ever known. She read a lot. She also wrote things, selling articles on flying and planes to "Vanity Fair" and other magazines, the proceeds helping to pay off some pretty big doctor bills.

And when she got around again, on crutches, she went straight back to school. This time to M.I.T., in Cambridge, Mass., to make a study of air currents. From there she went to take a job with Fairchild Aircraft, in Montreal. "Where," she added, as casually as another woman might explain that she designs clothes for a living, "I performed experiments in stress analysis."

Her work at Fairchild had to do with the structure of wings and fuselages and the stress they would stand in flight. Her discoveries, published in scientific journals that no one

but experts can figure out, were of such a revolutionary nature that she was asked to read a paper before the Canadian Engineering Institute. Which led, in due course, to a job with Canadian Car and Foundry, her present employers, who had a special task for Elsie to perform.

She had no sooner moved into her office out in Fort William when Dave Boyd, superintendent of aircraft production for Canadian Car, came hurrying up from head office at Montreal. He said they had an order for a training plane. Could Elsie make it? She said she might if she had a little more data. So the two of them sat down and prepared a questionnaire. Boyd took it back to Montreal and from there to New York, where he showed it to a Mexican agent who wanted trainers for his government's air force.

This gentleman was able to provide most of the answers, and Elsie went to work. A year later the McGill, or Maple Leaf, Trainer was rolled out of that Fort William shop. It was the first plane ever to be designed and built by a woman in more than thirty years of aviation history, and has since been described by a United States Navy test pilot as "one of the sweetest jobs I ever handled."

"It's funny about a new model," Elsie explained to me, recalling her experience with the trainer. "When you first start work on it the men around the shop refer to the job quite impersonally as The Trainer. Then, just a few days before test flights begin, it suddenly becomes *your trainer,* and if anything goes wrong *you* know who's to blame. Then, once it

Is test-flown and proved a success, it again becomes simply The Trainer."

Elsie insisted on making all test flights in this case, and *her* trainer had no sooner been shipped off to Mexico, together with all jigs required to make more of the same, when Dave Boyd again came hurrying to Fort William. This time he brought Elsie a task that made the previous chore seem like child's play: it was the Hurricane job.

Now that she is on top of the aeronautical heap, she remains a woman in many ways. For instance, she doesn't like a Hurricane's cockpit. She thinks it's too messy, and much prefers American cockpits.

"They're something like American kitchens," she said. "So neat and tidy. You feel that you could get things done in them."

This same regard for neatness applies to her home --- a well-furnished ten-room house which she shares along with a young nephew and a number of very fine pictures. Despite a million details requiring her attention at the plant, she finds time to order food for her own table and superintend the kitchen. She has recently acquired a new cook --- a Rumanian lady who doesn't speak a word of English. So it's quite natural that Elsie should learn to speak Rumanian, because cooks are pretty busy people.

And it is equally natural that she should get plenty worried not long ago when a kitten playing around the final assembly line got into a wing. Master Kitten skipped right over the machine-gun mounts and took refuge in a far corner of the wing, just out of reach.

The situation was reported to Elsie and she wouldn't allow work to proceed until the stowaway had been lured from his dangerous hiding place.

"I was afraid," she said, "the same thing would happen to him that happened to my de-icing equipment: that he'd wind up somewhere over the English Channel."

The story of Elsie's de-icing equipment is now part and parcel of the War Record. It seems that when hostilities first began, Britain sent twelve Hurricanes out to Canada, to be used in the Empire Air Training Program. One of these was shipped to Fort William, where Elsie got busy installing de-icing equipment in the wings --- heat-lining the cockpit and fixing it up nice and cozy for the R.C.A.F's Artic Patrol. Then Nazi pressure over Britain suddenly increased. A frantic wire arrived in Fort William. It was signed BEAVERBROOK and read RUSH ALL AVAILABLE HURRICANES IMMEDIATELY. "So we shipped it," Elsie said, "along with the rest."

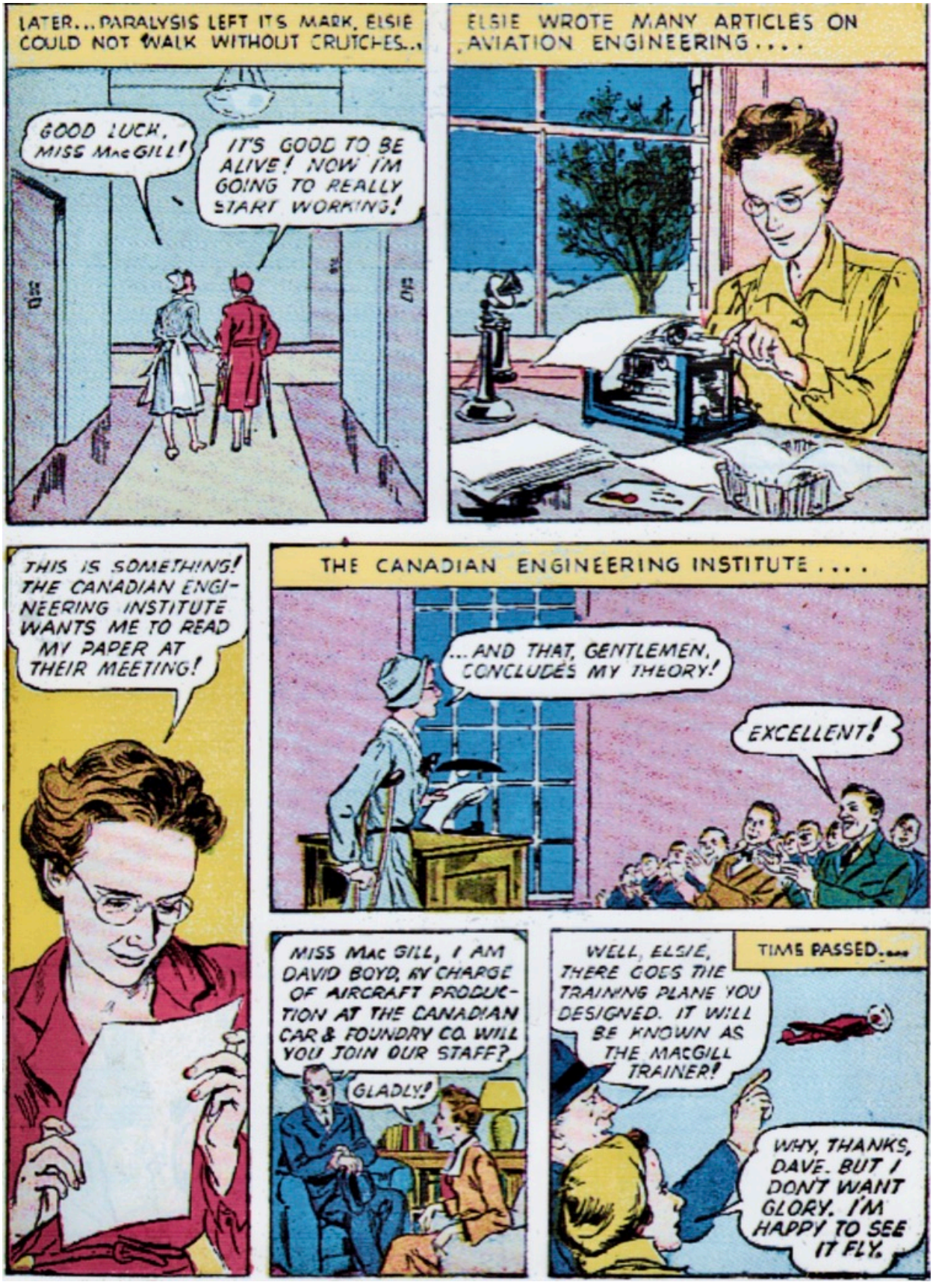
Elsie's de-icing equipment has since been made regulation equipment. Reading air-war reports as I returned home from my interview with Elsie, I wondered how many Hurricane pilots realize that they owe such comfort in the face of death to the touch of this frail little woman in far-off Fort William, who must walk with a cane, yet plays a magnificent role in Britain's valiant war effort.

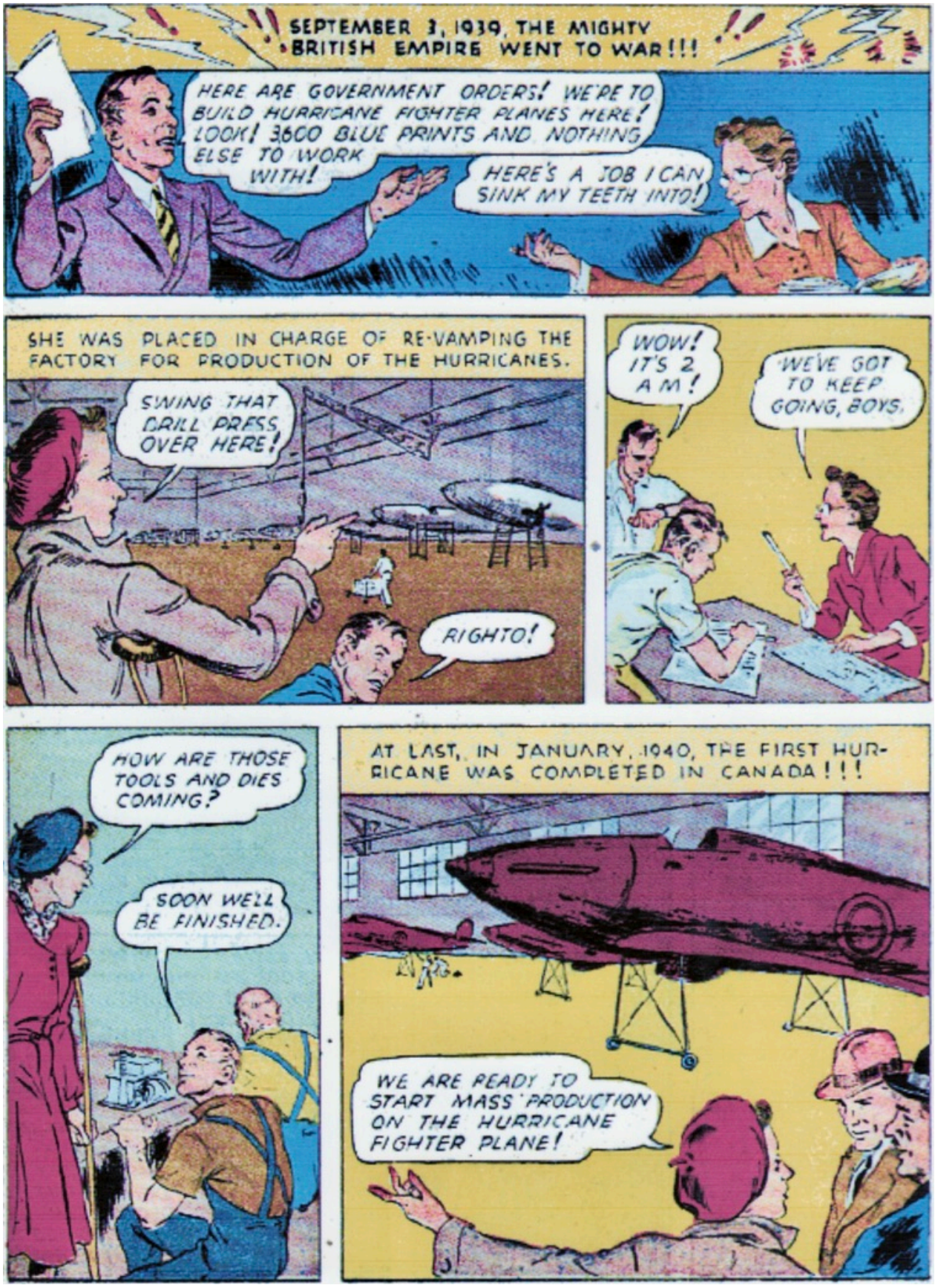
In the 1942 issue of True Comics was a story about Elsie MacGill.

Queen of the Hurricanes


QUEEN
OF THE
HURRICANES
ELSIE MacGILL
HOW A WOMAN CONQUERED TERRIBLE HANDICAPS AND BECAME CHIEF ENGINEER OF CANADA'S GREAT HURRICANE FIGHTER PLANE FACTORY.
ELSIE LIVED IN VANCOUVER BRITISH COLUMBIA. IN THE LATE 20'S....
DADDY, I WANT TO STUDY ELECTRICAL ENGINEERING.
BUT ELSIE! THAT'S A MAN'S WORK!
NONSENSE! IF IT'S WHAT SHE WANTS SHE'LL DO IT!
ELSIE ENROLLED AT TORONTO UNIVERSITY.
WHAT'S THE WORLD COMING TO? A GIRL TAKING ELECTRICAL ENGINEERING!
HOW DOES IT FEEL TO BE THE ONLY GIRL IN A CLASS OF 30 BOYS?
GO HOME TO YOUR KNITTING!
I DON'T MIND YOUR KIDDING! IT WON'T STOP ME!
FOUR YEARS LATER..
MISS ELSIE MacGILL! OUR FIRST WOMAN ENGINEER!
HURRAH FOR ELSIE!


HER FIRST JOB....
MISS MacGILL, WHY DO YOU WANT TO WORK HERE AT THE AUSTIN AIRCRAFT COMPANY?
YOU'RE OFFERING THE MOST PAY! I'M HALF SCOTCH YOU KNOW!
ELSIE, HOW DO YOU DO IT? - HOLDING A JOB HERE AND GOING TO MICHIGAN UNIVERSITY AT NIGHT?
TOM, MY STUDIES IN AVIATION SCIENCE FASCINATE ME!
GENTLEMEN... AND ER.. MISS MacGILL... REMEMBER, EXAMS WILL BE HELD IN 2 WEEKS!
A FEW NIGHTS LATER....
I... I... DON'T FEEL WELL. I MUST... OH... I'M... GOING TO FAINT.
MISS MacGILL... YOU HAVE... ER... INFANTILE PARALYSIS.
DOCTOR! MY WORK! MY STUDIES!
ELSIE TOOK HER EXAMS IN THE HOSPITAL AND..
MISS MacGILL, YOU HAVE PASSED WITH FLYING COLORS. YOU'RE A VERY COURAGEOUS WOMAN!


LATER... PARALYSIS LEFT ITS MARK. ELSIE COULD NOT WALK WITHOUT CRUTCHES...
GOOD LUCK, MISS MacGILL!
IT'S GOOD TO BE ALIVE! NOW I'M GOING TO REALLY START WORKING!
ELSIE WROTE MANY ARTICLES ON AVIATION ENGINEERING....
THIS IS SOMETHING! THE CANADIAN ENGINEERING INSTITUTE WANTS ME TO READ MY PAPER AT THEIR MEETING!
THE CANADIAN ENGINEERING INSTITUTE....
...AND THAT, GENTLEMEN, CONCLUDES MY THEORY!
EXCELLENT!
MISS MAC GILL, I AM DAVID BOYD, IN CHARGE OF AIRCRAFT PRODUCTION AT THE CANADIAN CAR & FOUNDRY CO. WILL YOU JOIN OUR STAFF?
GLADLY!
TIME PASSED....
WELL, ELSIE, THERE GOES THE TRAINING PLANE YOU DESIGNED. IT WILL BE KNOWN AS THE MACGILL TRAINER!
WHY, THANKS, DAVE. BUT I DON'T WANT GLORY. I'M HAPPY TO SEE IT FLY.

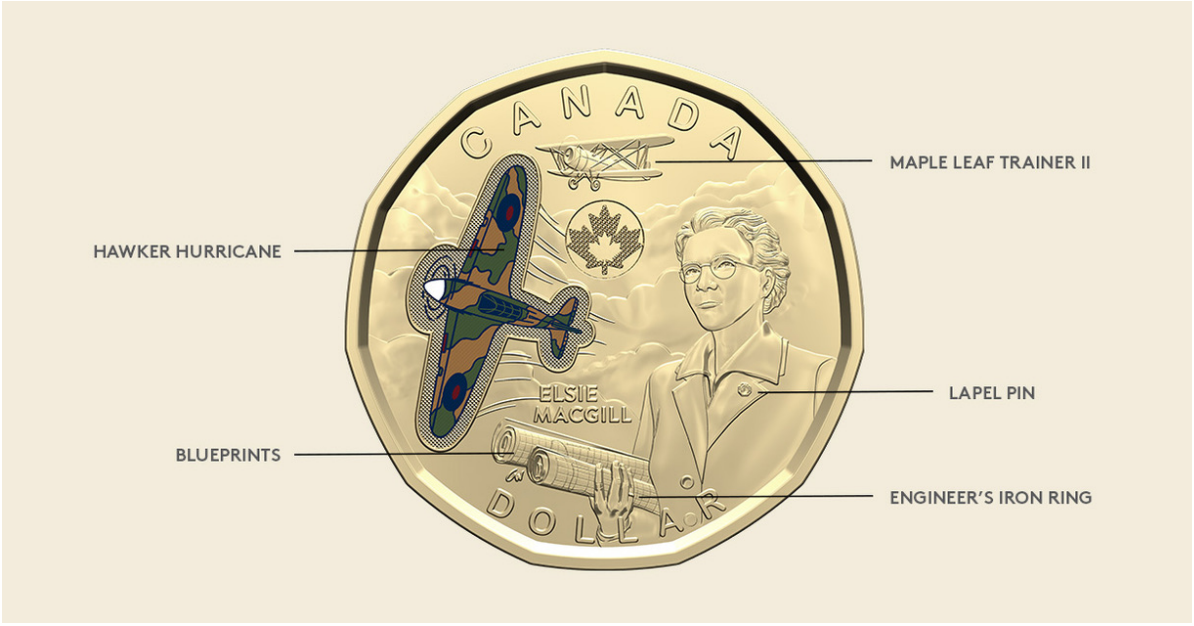

SEPTEMBER 3, 1939, THE MIGHTY BRITISH EMPIRE WENT TO WAR!!!
HERE ARE GOVERNMENT ORDERS! WE'RE TO BUILD HURRICANE FIGHTER PLANES HERE! LOOK! 3600 BLUE PRINTS AND NOTHING ELSE TO WORK WITH!
HERE'S A JOB I CAN SINK MY TEETH INTO!
SHE WAS PLACED IN CHARGE OF RE-VAMPING THE FACTORY FOR PRODUCTION OF THE HURRICANES.
SWING THAT DRILL PRESS OVER HERE!
RIGHTO!
WOW! IT'S 2 A.M.!
WE'VE GOT TO KEEP GOING, BOYS.
HOW ARE THOSE TOOLS AND DIES COMING?
SOON WE'LL BE FINISHED.
AT LAST, IN JANUARY, 1940, THE FIRST HURRICANE WAS COMPLETED IN CANADA!!!
WE ARE READY TO START MASS PRODUCTION ON THE HURRICANE FIGHTER PLANE!

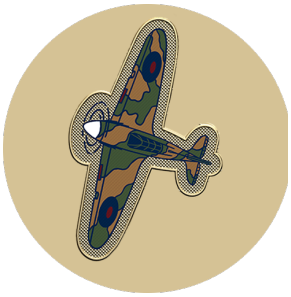

ELSIE DEVELOPED A DE-ICER FOR THE HURRICANE, WHICH SAVED MANY BRAVE R.A.F. PILOTS' LIVES.
MISS MacGILL'S NEW DE-ICER SURE KEEPS THE WINGS CLEAR OF ICE!
DESPITE HER HE-MAN JOB ELSIE IS ALL KINDNESS...
STOP PRODUCTION UNTIL YOU FIND THAT KITTEN. THE POOR LITTLE THING!
MEW! MEW!
GOSH, ELSIE MacGILL DRIVES LIKE A WHIRLWIND.
SHE WANTS TO BECOME A PILOT, TOO.
THIS, THEN, IS THE AMAZING WOMAN WHO PLAYS SUCH AN IMPORTANT PART IN CANADA'S VALIANT WAR EFFORT. ALL HONOR TO ELSIE MacGILL!
ELSIE RUNS HER OWN HOME..
MUM, THE NEW COOK CAN SPEAK ONLY RUMANIAN. BUT SHE'S VERY GOOD.
GOOD COOKS ARE RARE, AND SHE WON'T HAVE TIME TO LEARN ENGLISH. I'D BETTER GET TO SPEAK RUMANIAN!

Honouring Elsie MacGill

Aeronautical trailblazer, champion of women's rights, inspiration to us all. The 2023 $1 commemorative circulation coin celebrates Elsie MacGill, whose accomplishments, as well as her exemplary desire to uplift others, were driven by her unrelenting belief that we can all soar higher.

Royal Canadian Mint



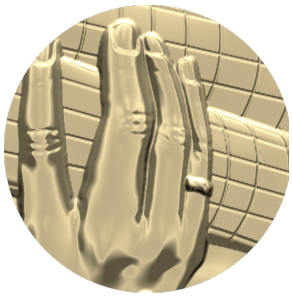


Hawker Hurricane

During World War II, Elsie supervised the production of over 1,450 Hawker Hurricane aircraft. This earned her the nickname “Queen of the Hurricanes.”

Maple Leaf Trainer II

During her time at the Canadian Car and Foundry, Elsie became the first woman in the world to design an aircraft – The Maple Leaf Trainer II.



Engineer’s Iron Ring

In 1938, Elsie became the first woman to be elected to the Engineering Institute of Canada.

Blueprints

These blueprints represent Elsie’s creativity, ambition, and her impact on the fields of engineering and aviation throughout her career.

Lapel Pin

As a women’s rights advocate, Elsie dedicated herself to the Canadian Federation of Business and Professional Women’s Clubs – both as a member and later as the provincial and national president.

On March 27, 2019, Canada Post
issued stamp honouring Elsie MacGill