

DEPARTMENT OF FINANCE

REPORT

of the

MASTER OF THE ROYAL CANADIAN MINT

For the Calendar Year 1946

Published by Authority of Hon. D. C. ABBOTT, M.P., Minister of Finance

OTTAWA
EDMOND CLOUTIER, C.M.G., B.A., L.Ph.,
PRINTER TO THE KING'S MOST EXCELLENT MAJESTY
CONTROLLER OF STATIONERY
1947

ROYAL CANADIAN MINT

OTTAWA, 31st March, 1947.

The Honourable, The Minister of Finance, Ottawa, Ontario.

SIR:

I have the honour to submit the following report on the operations of the Royal Canadian Mint during the calendar year 1946.

COINAGE

There was a decrease of \$2,594,100 in the amount of coin issued during 1946 as compared with the previous year. A detailed statement of the issues by denominations for the years 1945 and 1946 is set out below:—

D	Coin iss	ued in	
Denomination	1945	1946	
Silver Coin— I dollar. 50 cents. 25 cents. 10 cents.	\$ 38,300.00 980,000.00 1,324,000.00 1,074,000.00	\$ 91,000.00 400,000.00 556,000.00 654,000.00	
Total Silver Nickel Coin— 5 cents	3,416,300.00	1,701,000.00	
Steel Coin— 5 cents	950,300.00		
Bronze Coin— 1 cent	748,500.00	528,500 00	
Total	5,115,100.00	2,521,000.00	
Representing	Number	of pieces	
	111,890,300	68,335,000	

Distribution of the coin issued to the various Agencies of the Bank of Canada was as follows:

	Silver				Nickel	Bronze
Calgary	Dollar \$ 2,000	50 cents \$ 10,000	25 cents \$ 28,000	10 cents \$ 40,000	5 cents \$ 40,000	1 cent \$ 38,300
Halifax	4,000 16,000	8,000 50,000 6,000	28,000 76,000 92,000	14,000 54,000 122,000	3,500 28,000 49,000	6,500 26,000 111,000
Regina	13,000 4,000 2,000	6,000 94,000 2,000	66,000 38,000 34,000	20,000 58,000 28,000	12,000 33,000 11,000	12,100 43,000 25,50
Toronto /ancouver Winnipeg	42,000 2,000 6,000	188,000 36,000	144,000	230,000 34,000 54,000	70,000 42,000 3,000	189,600 35,50 41,00
-	91,000	400,000	556,000	654,000	291,500	528,50

Worn and mutilated coin withdrawn from circulation:

· —	Withdrawn	Net Increase in Circulation
	\$	\$
Silver Coin	84,040.45	1,616,959.55
Nickel Coin—5 cents (mutilated only)	1,634.15	289,865.85
Tombac Coin—5 cents	251,670.15	
Steel Coin—5 cents	. 320.75	
Bronze Coin	3,216.28	525,283.72

GOLD BULLION

Three thousand, five hundred and seventy-six deposits of gold bullion were received at the Mint during the year from Canadian Mining Companies, the Dominion of Canada Assay Office, Vancouver, and sundry persons. The gross weight of the deposits amounted to 3,271,246 ounces, containing by assay 2,652,245 ounces fine gold and 372,595 ounces fine silver. The receipts show an increase as compared with the year 1945 of 171 in the number of deposits, gross weight 168,255 ounces, gold content 148,828 ounces fine and fine silver 14,856 ounces.

The net amount paid by cheque to depositors was \$94,662,727.75. In addition 14,521.432 ounces of fine gold with a statutory value of \$300,184.74 was also issued in payment of gold deposits.

Postage collected for the Postmaster General on deposits shipped by mail, postage collect, amounted to \$10,671.52.

Details of the origin of the bullion deposited at Vancouver and Ottawa are shown in the following table:—

Source	Gross Weight	Fine Gold	Fine Silver
2	Ounces	Ounces	Ounces
From Canadian Mines and Refineries— Ontario. Quebec British Columbia. Manitoba. Yukon. Nova Scotia. North West Territories. Alberta and Saskatchewan. Total from Mines and Refineries. From Jewellery and Scrap. GRAND TOTAL.	2,088,834.000 850,325.800 108,655.105 94,030.900 56,440.940 4,670.200 30,068.400 146.640 3,233,171.985 41,310.430 3,274,482.415	1,699,440·377 700,867·647 87,683·119 75,575·704 45,282·908 4,320·912 21,119·923 110·825 2,634,401·415 19,221·236 2,653,622·651	237, 409.80 93, 275.29 14, 703.67 6, 523.98 9, 416.94 144.32 5, 793.21 12.90 367, 280.11 5, 675.18 372, 955.29

A detail of the fine gold issued in the form of trade bars to the Bank of Canada, and granulated, sweep and medals to sundry persons is shown hereunder:—

		Ounces Fine
(201	Trade Bars to Bank of Canada	2,522,853.880
6,304	Depositors	14,521.432
	Sales to Manufacturers	119,044.048
	Proof Plate	1.500
	Medals	5.443
	Sweep	9,538.460
	Sweep	
		2,665,964.763

This total shows an increase of 166,801 089 ounces fine as compared with the year 1945.

OPERATIVE DEPARTMENT

Superintendent-Mr. R. J. EDMUNDS

The productive capacity of the coining division was again extended during the year 1946 when a total of 73,168,921 coins of all denominations were passed for issue. Although the demands for Canadian metallic currency were considerably less than in 1945, as shown in the comparative table below, they were, however, greatly in excess of any pre-war year.

COINAGE

<u> </u>	1945	1946
Dominion of Canada	Pieces	Pieces
SILVER (800 fine)— I dollar. 50 cents. 25 cents. 10 cents.	38,391 1,959,528 5,296,495 10,979,570	93,055 950,235 2,210,810 6,300,066
Nickel— 5 cents	18,893,216	6,952,684
Bronze— I cent	77,268,591	56,662,071
Canadian Total	114,435,791	73,168,921
Newfoundland		
SILVER (800 fine)— 10 cents. 5 cents.	175,833 203,828	
•	379,661	
Total Canadian and Newfoundland	114,815,452	73,168,921

In addition to the above outturn of coins, there were over 150,000 sterling silver medals struck for the Armed Forces of World War II; 240,000 clasps and 40,000 overseas bar mounts to the Canadian Volunteer Service Medals, on account of the order for 1,183,000 Canadian Volunteer Service Medals required as awards to be given by the Department of National Defence.

As these medals and clasps had to be struck two blows at one hundred tons on the larger coining presses, adapted for medals, this work was done when the presses were available either after the regular day shift or after coinage demands had been met.

Details of the preliminary operations in the Melting House, Rolling, Cutting and Annealing Rooms, necessary to the production of the finished coins, medals and clasps, mentioned in the foregoing table, are summarized in the following statements:—

COINAGE

	Bars Cast	Bars Rolled	Blanks Cut	Good Coin Produced
SILVER (800 fine)— 1 dollar 50 cents 25 cents 10 cents	Ozs. 264,277.90 614,299.60 822,351.90 766,242.40	Ozs. 248,580·30 573,703·80 585,373·60 795,991·16	Ozs. 115,174-45 367,495-68 387,968-62 506,701-68	Ozs. 69,855.45 356,195.56 414,657.79 471,656.24
Total Silver	2,467,171.80	2,203,648.86	1,377,340.43	1,312,365.04
Nickel— 5 cents	Lbs.	Lbs.	Lbs.	Lbs. 69,656·98
Bronze— 1 cent	657,726.30	649,735.21	441,504.00	404,544.00
	Short Tons 413.4	Short Tons 400·5	Short Tons 267·9	Short Tons 282·1

MEDALS

	Bars Cast	Bars Rolled	Blanks Cut	Finished Medals
SILVER (925 fine)— Canadian Volunteer	Ozs.	Ozs.	Ozs.	Ozs.
Service Medals Clasps Overseas Bars	1,243,703.60 65,319.85 8,115.25	1,210,889·70 65,319·85 8,115·25	443,770·21 52,255·88 6,492·22	
Canadian Efficiency	1,317,138.70	1,284,324.80	502,518.31	165,240·00 1,419·00
Medals				30.00 386.85
Totals	1,317,138.70	1,284,324.80	502,518.31	167,075.85
	Short Tons 45·2	Short Tons 44.0	Short Tons 17·2	Short Tons 5.7

Melting House:

Other melting work done consisted of 73,307 ounces of worn and mutilated silver coins withdrawn from circulation, which were cast into ingots for assay purposes, and later converted into 800 standard coinage bars.

Worn and mutilated bronze one-cent coin amounting to 3,845 pounds, and 1,288,000 five-cent tombac coins weighing 12,880 pounds, which had been withdrawn from circulation, were also melted and cast into one-cent coinage bars. One thousand, three hundred and twenty pounds of tin alloy were cast into working slabs.

Special work for the National War Finance Committee required the casting of over 2,500 pounds of bronze into bars $3\frac{1}{2}$ " wide by $\frac{3}{4}$ " thick.

Rolling Room:

Additional work performed in the Rolling Room besides rolling and gauging 444.5 tons of bars and fillets to the thickness of the various denominations of coins, and for the medals and clasps, consisted of rolling to gauge the following:

- (1) 500 ounces of fine silver for 26 grain and 10 grain discs for the Assay Office;
- (2) 120 ounces fine gold proof plate;
- (3) 1,465 pounds of lead bars, for the production of 63,000 lead discs for the Assay Office;
- (4) 2,500 pounds of bronze bars for the National War Finance Committee Medallions.

Press Room:

The number of coins struck from each pair of dies, as well as the average production for 1945 and 1946 is shown in the following comparative table:

ъ.		194	5	i e	Sec. 17.10.10.10.10.10.10.10.10.10.10.10.10.10.	1946		
Denomi- nation	Number of Good Pieces Coined	Numb Dies		Pieces per Pair of Dies	Number of Good Pieces Coined	Numb Dies		Pieces per Pair of Dies
		Obs.	Rev.	is .		Obv.	Rev.	
Dollar	38,391	8	12	3,839	93,055	48	35	2,215
50 cents	1,959,528	51	42	42,140	950,235	24	30	35,194
25 cents	5,296,495	104	132	44,886	2,210,810	46	78	35,658
10 cents	10,979,570	268	204	46,524	6,300,066	193	169	34,807
5 cents	18,893,216	271	306	65,488	6,952,684	75	84	86,909
cent	77,268,591	129	95	689,898	56,662,071	200	168	307,946
	114,435,791	831	791	141,105	73,168,921	586	564	127,250
		1,6	522	average		1,1	150	average

The first impression of the Canadian Volunteer Service Medal was given on the 250-ton coining press at the rate of 7,000 medals during two shifts.

Three coining presses were adapted for the Canadian Volunteer Service Medal to strike the second impression. They were used only when the presses could be spared from coinage work. As the medal has to be carefully locked into the design to strike the second blow, each medal is fed individually into the collar and between the dies to ensure a perfectly struck medal. Production of 5,000 medals daily on these three presses could be maintained if coinage demands permitted.



PLATE I





Plate II

The two 500-ton friction medal presses were also put into operation on a third blow when necessary to redeem all medals which had been poorly struck previously.

Die and Medal Branch:

The Die Room prepared 1,096 punches, matrices and dies for Canadian coinages, 120 dies for Newfoundland coinage, 350 dies for the Canadian Volunteer Service Medals, 30 dies for clasps and 10 dies for overseas bar mounts to the C.V.S.M.

Two master dies were engraved direct in the steel by the Mint Engraver for the Canadian Volunteer Service Medal. The obverse die was engraved with the Coat of Arms of the Dominion of Canada. The reverse die portrays a group of marching figures representing the male and female services of the Navy, Army, Air Force, and Nursing Service, in which is depicted the precision style of marching on parade developed during World War II. The latter was engraved from a sketch by Major C. F. Comfort of the Canadian Army. (Plate II.)

A master die for the clasp attachment, and one for the overseas bar to the Canadian Volunteer Service Medal were also engraved by the Mint Engraver.

A new die was also made for sealing coin bags, and another to impress the Mint crest and date on fine gold bars produced at the Mint.

Two pairs of 3" diameter dies were engraved by hand by the Mint Engraver to strike special medallions for the National War Finance Committee.

At the request of the Secretary of State the Privy Seal of the Governor-General of Canada was hand engraved by the Mint Engraver with His Excellency's Coat-of-Arms and the inscription HAROLD RUPERT LEOFRIC GEORGE VISCOUNT ALEXANDER OF TUNIS. (Plate I.) The counterpart was also supplied.

One special seal without the inscription was also engraved for His Excellency the Governor-General.

Thirteen R.C.M.P. Long Service and Good Conduct fine silver medals, each mounted with clasp and ribbon, were issued to the Commissioner of the Royal Canadian Mounted Police. The name of the recipient was engraved on the edge of each medal.

Three gold medals were struck for the Royal Society of Canada, engraved with the recipient's name, as follows:—

One Flavelle Medal, 14 kt. gold,

"William Rowan, 1946",

One Henry Marshall Tory Medal, 18 kt. gold,

"John Stuart Foster, 1946",

One Tyrrell Medal, fine gold,

"A. L. Burt, 1946".

Two 10 kt. gold medals were issued to the Engineering Institute of Canada engraved as follows:—

One Leonard Medal.

"E. Cecil Roper, 1945",

One Gzowski Medal,

"John T. Dyment, 1945".

Nine hundred and fifty-five bronze medallions, 3" in diameter, were struck and toned for the National War Finance Committee. These medallions were engraved with either an English or French description as required. The metallic

contents were salvaged from Canadian Naval, Army and Air equipment in use during World War II, 1939–1945.

One thousand, two hundred and ninety Efficiency Medals were struck on behalf of the Department of National Defence, and 500 bars as second awards to the Efficiency Medals.

During the year the new medal unit was completely equipped with sufficient machinery and shaping tools to produce the required quota of 2,000 finished Canadian Volunteer Service Medals daily.

In the process of manufacture numerous difficult problems were met and dealt with and it was found possible to improve our methods by introducing many labour-saving devices and more efficient tools and jigs to suit the various new and unique operations. By so doing the output of assembled medals ready to ribbon and pack in their individual boxes can now be maintained, if necessary, at over 5,000 medals per day of one shift.

A considerable saving was effected by changing the method of finishing the clasps and overseas bar mounts. At first each clasp was filed by hand to remove the surplus metal left after trimming. Three small bench milling machines were installed, and by the use of high-speed milling cutters especially made to fit the design, the output was increased ten-fold with less labour.

Individual polishing of each clasp and bar on buffing machines was also discarded for the more rapid process of burnishing "en masse". By this method many hundreds of small parts are polished in a few minutes in rumbling barrels containing steel-burnishing balls revolving in a special saponaceous solution.

The Canadian Volunteer Service Medal is of unusual design for a war service medal, distinctly Canadian, with the bilingual inscription surrounding the marching figures, "1939 CANADA 1945 VOLUNTARY SERVICE VOLONTAIRE", with two small maple leaves before and after the word "SERVICE". It is of the standard diameter used for the round medal in the British Empire, one and seven-sixteenths of an inch or 1.4375". The clasp to hold the ribbon is straight with three bevels narrowing towards the lower part, and is attached to the medal by means of a sterling silver jump ring which passes through a loop on the medal to make one unit when assembled.

The bar to the Canadian Volunteer Service Medal given for overseas service may be recognized by the presence of a maple leaf on the centre of the front face. The ribbon is blue in the centre with two stripes of red and green on each side.

A request was received from the Department of National Defence for the Mint to strike 658,000 Campaign Stars of eight different designs for issue to members of the Armed Forces of Canada, in connection with service in the several campaigns during World War II. The stars will be struck in bronze.

Master punches for the France and Germany Star, 1939–45, Burma, Pacific, and Italy Campaign Stars were received from the Royal Mint, London, together preparation of the various tools and working dies to strike the stars was immediately undertaken in the die and tool room under the supervision of the Mint Engraver.

Mechanical and Electrical Branches:

The main energies of the artificer and electrical staff during the first half of the year were directed towards the erection and adaptation of the machinery and electrical equipment in the Medal Branch needed to meet the demands for the manufacture of medals and campaign stars.

Additional machines were purchased new, some purchased second-hand from War Assets Corporation, three milling machines were borrowed from another government department, and many others were designed and completed by the Mint Staff.

Maintenance work, renewals and repairs to rolling mills, cutting machines, and coining presses, kept the lathes, shapers, milling machines, grinders and other machine shop equipment operating continuously throughout the year.

Two more coining presses were fitted with the single lift ejector device, mentioned in last year's report. This feature has proven so successful in remedying any movement in the medal placed upon the die for the second impression and in speeding up the outturn of coins that it is intended to incorporate this improvement on all the presses eventually.

An air compressor unit of 150 pounds pressure at maximum capacity was installed during the year, and air lines connected to all parts of the Operative Department, Refinery and Medal Branch. It has been most useful for cleaning purposes especially in deep recesses of motors and generators where accumulation of oil and dust presents a fire hazard; also on the coin and medal presses to keep lint and dust from ruining the specular surfaces of the finished products and in the operation of small grinding machines on fine precision work required on dies and special cutting tools.

One of the two drop hammers, which had been on order for over twelve months, was installed and put into operation striking clasps, overseas bars and campaign stars late in the year. With a ram or hammer weighing 200 lbs. and adjustable stroke to strike from 10 to 100 ton blows at 16 to 62 strokes per minute the hammers will not only relieve congestion of work on the coining presses, but will be useful to perform heavy operations which the presses cannot be expected to do. Equipped with the most modern safety devices and guards on moving parts, and mounted on special foundations to absorb vibration, both danger to worker and noise are reduced to the minimum.

The working conditions in the Rolling and Cutting Rooms were greatly improved by the installation of fluorescent lighting by the electrical staff.

Eight motors were completely re-wound, and the generator of the chromiumplating plant was fitted with a new commutator manufactured under the supervision of the Electrical Superintendent.

Several thousand pounds of scrap metal, worn out parts beyond further use, and obsolete machinery were salvaged and disposed of through War Assets Corporation.

Miscellaneous:

Efforts have been continued to cut down wastage, institute the most economical methods of operating, and to remove hazards. By washing and re-washing all cleaning materials, filtering used oil for re-use on rolling mill bearings, mending clothing, repairing coin bags, etc.; by improving methods in processing coins and medals; and installing safety devices where there may be the slightest danger to a worker, much has been accomplished as a result of these efforts.

At the close of the year the number of craftsmen and apprentices employed in the mechanical branch, coining division and medal unit reached a total of 202 compared with 176 at the end of 1945.

The staff were entertained on two occasions by film-strips and motion pictures presented by the National Film Board as an aid to health education in keeping with Canada's Health and Welfare program.

contents were salvaged from Canadian Naval, Army and Air equipment in use during World War II, 1939-1945.

One thousand, two hundred and ninety Efficiency Medals were struck on behalf of the Department of National Defence, and 500 bars as second awards to the Efficiency Medals.

During the year the new medal unit was completely equipped with sufficient machinery and shaping tools to produce the required quota of 2,000 finished Canadian Volunteer Service Medals daily.

In the process of manufacture numerous difficult problems were met and dealt with and it was found possible to improve our methods by introducing many labour-saving devices and more efficient tools and jigs to suit the various new and unique operations. By so doing the output of assembled medals ready to ribbon and pack in their individual boxes can now be maintained, if necessary, at over 5,000 medals per day of one shift.

A considerable saving was effected by changing the method of finishing the clasps and overseas bar mounts. At first each clasp was filed by hand to remove the surplus metal left after trimming. Three small bench milling machines were installed, and by the use of high-speed milling cutters especially made to fit the design, the output was increased ten-fold with less labour.

Individual polishing of each clasp and bar on buffing machines was also discarded for the more rapid process of burnishing "en masse". By this method many hundreds of small parts are polished in a few minutes in rumbling barrels containing steel-burnishing balls revolving in a special saponaceous solution.

The Canadian Volunteer Service Medal is of unusual design for a war service medal, distinctly Canadian, with the bilingual inscription surrounding the marching figures, "1939 CANADA 1945 VOLUNTARY SERVICE VOLONTAIRE", with two small maple leaves before and after the word "SERVICE". It is of the standard diameter used for the round medal in the British Empire, one and seven-sixteenths of an inch or 1.4375". The clasp to hold the ribbon is straight with three bevels narrowing towards the lower part, and is attached to the medal by means of a sterling silver jump ring which passes through a loop on the medal to make one unit when assembled.

The bar to the Canadian Volunteer Service Medal given for overseas service may be recognized by the presence of a maple leaf on the centre of the front face. The ribbon is blue in the centre with two stripes of red and green on each side.

A request was received from the Department of National Defence for the Mint to strike 658,000 Campaign Stars of eight different designs for issue to members of the Armed Forces of Canada, in connection with service in the several campaigns during World War II. The stars will be struck in bronze.

Master punches for the France and Germany Star, 1939–45, Burma, Pacific, and Italy Campaign Stars were received from the Royal Mint, London, together with photographs of the blanking cutters, trimming and swaging tools. The preparation of the various tools and working dies to strike the stars was immediately undertaken in the die and tool room under the supervision of the Mint Engraver.

Mechanical and Electrical Branches:

The main energies of the artificer and electrical staff during the first half of the year were directed towards the erection and adaptation of the machinery and electrical equipment in the Medal Branch needed to meet the demands for the manufacture of medals and campaign stars.

ASSAY OFFICE

Chief Chemist and Assayer—W. A. HAWKEY, A.C.S.M.; Assoc. Inst. M.M.

The number of assays made in the Department from the 1st January to the 31st December, 1946, was as follows:—

Gold—		
Refinages	4,999	
Rough Gold	18,757	
Proofs	2,219	
Parting Proofs.	701	
Parting Buttons	7,030	
Miscellaneous	883	
Wilscenatieous	003	24 500
Silver—		34,589
	2 25/	
Standard Bars	2,356	
Pyx	782	
Proofs	811	
Fine Silver Ingots	661	
Medal Bars	1,101	
Medal Blanks	10	
Rings and Wire	42	
Worn Coin Ingots	176	
Miscellaneous	49	
		5,988
Miscellaneous—		,
Mint Residues (Sweeps, etc.)	507	
For the Marking Act Inspector	97	
Commercial Assays	10	
		614
	_	
Total		41,191
		,

The mean finenesses of the Silver Coinage struck in 1946 were as follows:-

Denomination	Standard Fineness	Mean Fineness
1 Dollar	800·00 800·00 800·00 800·00	799 · 70 799 · 22 799 · 5 799 · 38

During the year under review 3,576 deposits were received, 149 being from the Vancouver Assay Office and the remaining 3,427 coming direct from the depositors.

The gross weight of the bullion received was 3,271,246.455 ounces comprised of the following:—

FINE GOLD— 289 deposits weighing 623,642 825 oz., which, having a mean fineness of 997 306, required no further refining.

CRUDE BULLION—
2,885 deposits; 2,528,174.470 oz. of an average fineness of 769.990 gold,
150.420 silver and containing 7.959% base metal.

Scrap (Jewellery and Dental)—
253 deposits weighing 37,593.550 oz. with an average fineness of 469.905 gold and 143.674 silver.

From Vancouver Assay Office— 81,835.600 oz. gross at 805.853 gold and 153.521 silver. Samples from forty-five lots of nickel blanks, representing in all about nine million pieces, were assayed and found to satisfy specifications.

One fine gold working trial plate was made and fixed against our special standard.

A total of sixteen ounces of silver and one and a half ounces of gold proof plate was sold.

One hundred and twenty-five ounces of gold was specially refined and assayed for the National Research Council.

A number of suspected counterfeit silver coins were examined and where necessary assayed.

REFINERY

Chief, Refinery Division—Mr. C. J. Morris

During the year ended 31st December, 3,427 deposits were received from mines and miscellaneous depositors, and 149 from the Vancouver Assay Office, containing in all 2,652,245 ounces of fine gold and 372,595 ounces of fine silver. 250,805 ounces gross of the bullion received had to be re-melted before uniform assays could be obtained.

Six thousand, two hundred and forty-six fine gold trade bars amounting to 2,506,475 ounces gross containing 2,500,475 ounces of fine gold at an average assay of 997.59; granulated gold for trade purposes weighing 129,541 ounces gross containing 129,510 ounces fine gold at an average assay of 999.76 and fine silver bars weighing 354,143 ounces gross containing 353,943 ounces fine at an average assay of 999.43, were produced in the Refinery and delivered to the Mint Office.

Granulated gold scrap amounting to 247 ounces fine and 754 ounces fine of granulated silver and silver medal scrap were received from the Mint Office for treatment. One 14 kt. gold bar was cast for the production in the Operative Division of medals for the Royal Society of Canada.

The total recovery of sweep was 50.7 tons, which contained 10,714 ounces of fine gold, and 41,957 ounces of fine silver. Out of the amount recovered, mixed and sampled, sweep containing 8,896 ounces of fine gold and 34,826 ounces of fine silver was delivered to the Mint Office for sale.

Silver chloride from the refining of the rough gold deposits amounted to 720,684 ounces, which was treated to yield 353,943 ounces in fine silver bars and 766 ounces of granulated silver.

DOMINION OF CANADA ASSAY OFFICE, VANCOUVER, B.C.

Manager—Mr. G. N. Ford

The sum of \$2,406,170.90 was disbursed for gold bullion purchased and the following table shows the source, weights, etc. of the deposits:—

Number of Deposits	Gross Weight	Fine Gold	Fine Silver
Zoposiis	Ounces	Ounces	Ounces
230 244 10 119	56,440.94 24,767.11 146.64 3,716.88	45,282.908 20,375.709 110.825 1,555.813	9,416.94 2,844.13 12.90 649.87
603	85,071.57	67,325.255	12,923.84
	230 244 10 119	Deposits Ounces 230 56,440.94 244 24,767.11 10 146.64 119 3,716.88	Deposits Ounces Ounces 230 56,440.94 45,282.908 244 24,767.11 20,375.709 10 146.64 110.825 119 3,716.88 1,555.813

COMPARATIVE STATEMENTS

(1) Totals for Each Year under Above Headings, 1939 to 1946 Inclusive—

1939	2,326	221,137.00	178,707.286	30,235.32
1940	2,224	219,976.14	175,301.091	31,822.17
1941	1,978	202,766.19	163,014.058	28;462.72
1942	1,460	183,738.18	147,517.917	26,422.54
1943	722	80,552.50	63,312.314	11,630.24
1944	577	48,983.87	37,679.028	7,649.55
1945	499	61,113.31	48,131.200	8,923.70
1946	603	85,071.57	67,325.255	12,923.84

(2) Totals for Each Year, 1939 to 1946 Inclusive, Disbursed for Gold Bullion Purchases

1939	\$6,442,365.81
1940	6,685,353.07
1941	6,216,906.58
1942	5,628,080.26
1943	2,414,688.10
1944	1,436,665.86
1945	1,835,799.67
1946	2,406,170.90

There has been a steady increase in the value of gold received since the low of 1944; it is estimated the 1947 production will be in excess of 1946.

GENERAL

The annual stocktaking and inspection of the store of bullion and coin, as required by the Act establishing the Royal Canadian Mint, was conducted by the officers of the Auditor General's Department in March.

The Assay Commissioners, Dr. J. D. Babbit of the Division of Physics and Electrical Engineering, National Research Council, Mr. J. R. Mills of the Division of Chemistry, National Research Council, and Mr. J. A. Fournier, Chief Chemist of the Metallic Minerals Division, Department of Mines and Resources, appointed under the provisions of the Currency Act for the purpose of ascertaining that coins of the Currency of Canada struck at the Royal Canadian Mint during 1945 had been minted in accordance with the provisions of the said Act, were sworn in by His Honour, Judge A. G. McDougall, in the presence of Mr. G. E. Lowe as representative of the Department of Finance, on the 3rd day of May, 1946.

The findings of the Assay Commissioners indicated that the coins, both as to weight and fineness, conformed with the standards established by the Currency Act.

Appendix "A" shows the transactions in gold bullion since the opening of the Mint in January, 1908, and in Appendix "B" are given the details of the coin issues in Canada since 1858.

I am, Sir,

Your obedient Servant,

A. P. WILLIAMS, For the Master, Royal Canadian Mint.

APPENDIX A

Summary of Transactions in GOLD BULLION of the Ottawa Branch of the Royal Mint from its opening on the 2nd January, 1908, to its disestablishment on the 30th November, 1931, and of the Royal Canadian Mint from the 1st December, 1931, to the 31st December, 1946.

				(i)	
	Gold R	GOLD RECEIVED		GOLD ISSUED	
I ear	Gross Weight	Value (Statutory) Gold Only	Coin	Bullion	Statutory Value Coin and Bullion
	Ounces	₩	€	Ounces Fine	₩.
1908 to 1936	53,910,494.021	910,817,142.05	7,923,878.73	43,634,524.862	909,929,557 75
1937	4,959,970.893	81,311,693.73		3,937,910.698	81,403,837.11
1938	5,601,260.642	90,920,063.13		4,308,067.369	89,055,654.13
1939.	6, 181, 336. 290	100,656,105.55		4,834,214.285	99,932,075.82
1940	6,295,218.554	103, 169, 970.38	30.00	5,026,792.728	103,913,055.43
1941	6,444,056.215	105,273,560.67		5,134,347.805	106, 136, 385.78
1942	5,761,045.973	95,338,135.90		4,611,892.227	95,336,270.79
1943	4,456,437.559	74,769,168.35		3,645,739.964	75,364,131.92
1944	3,537,734.636	59, 163, 794. 79		2,829,755.000	58,496,226.17
1945	3,102,991.020	51,750,218.87		2,499,163-674	51,662,297.22
1946	3,271,246.445	54,826,765.59		2,665,964.763	55,110,381.61
	103,521,792.248	1,727,996,619.01	7,923,908.73	83,128,373.375	1,726,339,873.73

APPENDIX B COIN ISSUED IN CANADA

						SILVER				Nickel	Томвас	STEEL	BRONZE	22
			Dollar \$	50c.	25c.	20c.	10c.	5c.	Total Silver	5c.	5c. \$	5c. \$	<u>.</u> ↔	
	New Brunswick, 1861, 2 and 4					90,000	25,000	10,000	95,000				20,000	-, -
1858 to	Nova Scotia, 1861, 2 and 4.	Struck			:	:		:	:			:	26,000	4,000
1907	Prince Edward Island, 1871	England	:	:		:		:				:	10,000	
	Kest of Canada, 1858–1907			1,249,018	5,094,978	150,000		2,926,000	3,040,000 2,926,000 12,459,996			:	803,315	:
	Totals			1,249,018	5,094,978	210,000	3,065,000 2,936,000 12,554,996	2,936,000	12,554,996				859,315	5,114
	Cold						y*				12		10	
	Sover- \$10	\$5				OB.			U.	a n				
	eigns	₩						2		3				
1908							18							
to	200													
1937	627,834 3,480,360 1,388,060	0 1,388,060	734,220	7	9,982,425		6,526,144	3,084,802	23,065,491	6,526,144 3,084,802 23,065,491 2,656,100.00			2,070,606	:
1938			90,000	96,000	782,000		408,000		1,376,000	153,500.00			184,300	:
1939		2010	*1,220,732	144,000	867,400	:	561,900	: : : : : : : : : : : : : : : : : : : :	2,794,032	321,000.00			214,600	
1941		:		842,000	1,718,000		974,000		3,534,000	454,000.00			822,800	:
1942		:	:	1,022,000	1,708,000	:	1,034,000	:	3,764,000		169,424.50		783,500	
1944				1,230,000	1,818,000		958,000		7,044,000		1,238,000.00	571 000	881,300	:
1945			38,300		1,324,000	:	1,074,000	:	3,416,300			950,300	748,500	
			000,16	400,000	956,000	:	654,000	:	1,701,000	291,500.00		:	528,500	:
	627,834 3,480,380 1,388,070 2,415,152 11,328,	0 1 , 388 , 070	2,415,152	11,328,918	918 30,307,703	210,000	19, 140, 444	6,020,802	69,423,019	210,000 19,140,444 6,020,802 69,423,019 5,149,275.50 1,407,824.50 1,521,300 8,228,721	,407.824.50	1,521,300	8,228,721	5.114
*	* Of this amount \$15,000 returned in 1940.	eturned in 19	940.	† This c	† This coin struck in 1943	1943.								