

Kingston Stamp Club Chapter 49 of the Royal Philatelic Society of Canada

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1) President's Message

RPSC Sales Book Circuit once again generated healthy sales at \$600 and club commission was \$30.00.

Kingston Festival 2006 was a success from all measures including financially; we made the same profits as last year.

Given the healthy state of the club both in terms of volunteers and our finances I will be very content to make the move to Past President May 2007 at our Annual General Meeting. I am confident that from our club and/or executive committee we can find one member who is prepared to succeed me as President of our club.

Upcoming Schedule of Club Dates

February 12 & 26 Trading Nights
March 12 Club Auction
March 26 Trading Night

Bob Chadwick

Bob Chadwick, President

31 Abbey Dawn Drive

Bath, ON K0H 1G0

Tel 613-352-1052

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2) Editor's Comments

Here is our third issue, already! How time flies! I want to thank all of our members who told me they enjoyed these newsletters and ideas for future articles.

In this issue we have an update on Marconi, new postal rates now in effect, our continuing articles on preservation and care of



our philatelic material, Germania issues of Germany, and Weights and Measures.

Enjoy.

Editor – Richard Weigand

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3) Marconi – Finally proven true



Skeptics have claimed that Marconi did not hear a distinct signal from England rather static or lightning, back in 1901. The story sounds like a fable to skeptics. To prove conclusively Marconi's claim, radio scientists in St John's have conducted experiments to see if the Italian inventor Guglielmo Marconi's claim of hearing three faint electromagnetic clicks – the letter S in Morse code- was really valid.

This signal was sent from Poldhu, England 3,470 kilometers away at noon December 12,1901 and received at Signal Hill, St John's NL.

The current test included an antenna measuring 150 meters tall and attached to a receiver the size of a pocketbook, detected the signal at fifteen-minute intervals.

In addition Jeff Briggs, an amateur radio expert has also heard the signal from his home in Hopewell Junction, NY (about 115 km north of New York City). At his highly sophisticated receiving station the call letters S in Morse code was heard clearly at 1,960 kilohertz (1960 on the AM dial).

Marconi garnered global acclaim, won the Nobel Prize for Physics in 1909, and became known as the "father of radio".

Stamp Details

Series: Communication Technology
Series Year (inclusive dates): 2002
Printer/Quantity: Lowe-Martin Company Inc.
 2 500 000
Perforation: 13 x 12.5
Creator(s): Designed by Susan Warr
 Based on an illustration by Bonnie Ross
 Based on a photograph by Beaton Institute

Bibliography

The Kingston Whig Standard
 Thursday November 9,2006
 Article – "Radio Expert in Marconi's Corner"
 By Tara Brautigam ,The Canadian Press
 St John's NL

Collections Canada Web site for background on Marconi issue and stamp image



4) Canada Post New Postal Rates

New postal rates came into effect January 15,2007
New postal rates came into effect January 15,2007
 Domestic Rates – 51 c to 52 c for 0-30 grams

Registered Mail - \$6.50 to \$6.95

USA and International Rates

.89 c to .93 c for 0-30 grams
 \$1.49 to \$1.55 for over 30 grams



5) Preservation and Care of Philatelic Material

- Mechanics of Paper Deterioration

Three atoms -- carbon, hydrogen, and oxygen -- are the fundamental units of paper. They are combined in glucose molecules, which are combined in the cellulose chain. Two types of bonds -- hydrogen and covalent -- occur in the cellulose chain. The covalent bond is the primary force holding the glucose molecules together, while the weaker hydrogen bonds function in the formation of sheets. These forces forming the microfibril hold the sheets together. The hydrogen ion (a positively charged hydrogen atom) is acidic and, when released, can cause the break of the covalent bond in the cellulose chain. A continuation of that process produces acidic degradation.

Pollutants in the atmosphere such as sulfur dioxide and nitrogen dioxide can form sulfuric acid and nitric acid, respectively. These acids can break the chemical bonds holding paper fibers together.

Acidity in paper has been determined to be the most single important cause of deterioration in modern papers. The pH number on a scale from 0 to 14 measures acidity. A pH of 7 is neutral. Above pH 7 is the alkaline range, while below pH7 is the acidic range.

Prior to about 1850, papers were produced from linden and cotton rags. Such papers are relatively stable and, when properly stored and handled, will last literally for centuries. After 1850, as the demand for papers and utilization of them increased, alternatives to linden and cotton rags began to be used in paper manufacture. From about 1860 on, chemical wood pulp became more and more used until today the vast majority of modern papers are made from chemically treated wood pulp. Chemical treatment reduces the lignin content, and synthetic sizing agents are then added. It is the decomposition of residual lignin in paper, which, in the presence of heat and light, presents the major problem to individuals wishing to preserve the papers concerned. Decomposition of lignin produces a strong organic acid and also promotes the absorption of atmospheric acid, although some wood pulp paper is manufactured with the lignin removed resulting in the paper having only a slightly acidic pH and in the paper being acceptable to many conservation purposes.

Campbell (1993) reported on a study to investigate the levels of acidity in commonly available album pages marked for mounting stamps. The resulting data are displayed below:

pH values for selected album pages.

Album/Mounting Page	pH
Scott Specialty	8.0
Harris (Blank Page)	7.8
Can. Wholesale Supply	7.0
Gibbons	6.2
Leuchtturm	6.2
Lighthouse	6.1
Scott (Blank)	6.0
White Ace (Supplement)	6.0
Davo	5.9
Grossman	5.8
Minkus	5.4
Schaubeck	5.3
Ka-Be	5.3
Whitman	5.1
Lindner	5.0
Harris	4.9

The conclusion from the study was that while a pH of 7 is ideal, any papers with a pH of 6, or 7, or 8 would be satisfactory for use with our stamps.

The important issue regarding the pH of album pages is that we need to be aware of what the pH is for pages we use. The pH of a paper can be determined by the use of a pH pen, with which,

from its mark on a paper, one can measure pH. Abbey Publications, 320 East Center Street, Provo, UT 84660, U. S. A., markets such a reasonably accurate pH pen. University Products Inc., 517 Main Street, Box 101, Holyoke, MA 01041, U. S. A., sells a pH pen which is excellent for distinguishing the acidity or alkalinity of uncoloured papers above or below pH 6. Light Impressions Inc., 489 Monroe Avenue, Rochester, NY 14607, U. S. A. sells a pH pen that is a good indicator of whether or not deacidification of a paper is needed.

It should be pointed out that as paper ages, the acidity level can increase slightly. Papers with an alkaline or calcium carbonate reserve will show a drop in pH value but will still neutralize acids as they form. Some available acid-free archival papers are buffered with up to 3.5% calcium carbonate. This allows for migration of acids from other types of low-grade ground wood fibers in materials such as newspaper clippings. Over time, an acidic paper in contact with an acid-free paper will transfer acid by migration to the acid-free item, discolor it, and ultimately destroy it.

Alkaline buffers can be added to papers to preserve them. A single treatment will not only neutralize the acids in the item you are treating but will also leave an extra alkaline buffering capability in the item.



6 Germania – Germany’s Longest Issue

By Richard Weigand



The Deutsches Reich first postal issue started in 1872 and the image was the Royal Eagle and Crown with the Eagle facing left. These images remained in place in various formats including overprints until 1900.

In late 1898 King Wilhelm II decided to change the postal issues away from the Eagle and Crown to another image to reflect on Germany’s image as a nation. King Wilhelm II went to the opera and saw the play titled “Tristan and Isolde” and was struck by the image of the Irish warrior princess image. In 1899 King Wilhelm II decided to create a new image of German postal usage using the image of Isolde to reflect a united Germany (Prussian military power) strong and free.



There was a competition for the best image and the workmanship of Paul Eduard Waldraff (1870 - 1917) was selected. The model for the Germania image is that of Anne Fuhring (1866 – 1929) who played many operatic roles including Isolde. She was a very popular actress during the 1890 – 1910 period.

This issue became the most popular issue in Germany spanning the years 1900 – 1924. There were actually five separate printings as outlined below:

1900: The "Reichspost" Issue – First Printing – Issue Date January 1,1900 – Start of a new century and new image for Germany

The first issue of the Germania marken is designated after its inscription " realm post office". The values covered 2 pfg to 80 pfg and included the 30, 40, and 80 Pfennig, which were already in use in December 1899 for internal-postal use only. The low values to 3, 5, 10 and 20 Pfennig were printed incolour on white paper and the higher values to 25, 30, 40, 50 and 80 Pfennig were printed two-colored on colored paper. The printing of the two-colored marks took place in two steps: first the colored frameworks (so-called framework plate), then the black Medallion with wertziffer (so-called black print plate) was printed.

1902: The “German Reich Issue” – Second Printing – Issue Date April 1,1902

For this issue "Deutsches Reich" (“German Reich”) inscription replaced the “Reichpost” at the bottom of the stamp. This change was made as the Kingdom of Wuerttemberg was amalgamated into Germany and the assumption of the postregals by the realm post office. There are incolour values, similar to which two-colored, somewhat smaller cut and with a smaller

Medallion. Likewise, there are small changes in the design of the Germania image as well.



Here is a comparison of the two different plates of the 3 Pfennig issue. On the right is the first issue (realm post office), on the left is the second issue.

The German Issues of 1905 to 1911 "Deutsches Reich with water-marks"



Starting from 1905 to 1911 these issues were printed with watermarks to protect against fake stamps. The watermark ("lozenges" was used, see fig. left). The first value was the 60 Pfennig.

1915 to 1918 – "The War Issues" – The Third Printing

The War Issues are different because of the scarcity of raw materials at that time. Accordingly, the ink and paper became poorer with each issue. The glossy paper finish in the prewar times is now a rough finish and the glue is of poor quality and the watermark became increasingly degraded. The printing inks, likewise became ever worse with each issue. The printing machinery including the rubber part of the printing press was replaced by dextrin. This dextrin resulted in yellowish, thick and grey images, which also contained foreign particles. The War Issues were now on white paper and there was no longer the hatched background



1919 – War Welfare Issue – Fourth Printing –

May 1, 1919 Germany's First Semi Postal

On 1 May 1919 two issues were overprinted to provide funding for war victim relief. The issues overprinted were the current 10 and 15 pfennig stamps. This was Germany's very first Semi Postal Issue and raised millions of Marks for war victim relief for the soldiers and families.



1920-1922 – The Inflation Issues – The Fifth Printings - New Values and Overprints

The inflation period in Germany resulted in an increase of postage rates and thus colour changes became necessary. The 5 to 80 Pfennig were now colored printings. The Mark values were printed in two colors with hatched background. This was the result of using older printing plates.



The 1921 – 1922 Inflationary Period resulted in monetary depreciation making it necessary that there be ever shorter periods between new higher postage rates.

Overprinting on older issues in both black and green ink were used in an effort to keep up with Inflation.

Uses of the Germania Issues Outside the Deutsches Reich

The following list gives an overview of the uses of the Germania marken outside of the area of the German Reich.

Kingdom of Wuerttemberg Started in 1902 using this as postal issues for all mail

Free State of Bavaria 1919 with overprint " **Free State of Bavaria** "

German foreign post offices - with overprinted national names, and/or the there common currencies including China, Turkey, Morocco and Konstantinopel

Free city Danzig 1920 – 1921 – Overprinted .

Memelgebiet (under League of Nations Administration) - 1920 print national names

Saargebiet (under League of Nations. Administration) - with overprints" **Sarre** ", later " **Saargebiet** "

German Occupied Areas during WWI

- Belgium (national post office)
- Military Occupied West
- Post office area Upper East
- Russian Poland
- Romania
- 9th. Army

Bibliography

www.germania.de

Michel Catalogue

Scott Catalogue

7) English Weights and Measures

By Richard Weigand

Federal Standards Laboratory – Braunschweig, Germany - The Kilogram is getting lighter, scientists say, sowing potential confusion over a range of scientific endeavours.

A platinum-iridium cylinder, cast in England in 1899, defines the Kilogram. No one knows why it is shedding weight, at least in comparison with other reference weights, but the change has spurred an international search for a more stable definition. The Kilogram has lost 50 micrograms (less than the weight of a grain of salt).

The Federal Standards Laboratory located in Braunschweig, Germany is the lab responsible for accurate scientific measurement techniques and is now searching for another method to ensure weight is calculated properly. The agency keeps the international reference kilogram in a heavily guarded safe in a chateau outside Paris, France. The safe is carefully guarded around the clock and only three individuals have the key to the safe. The kilogram measure is taken out and weighed on a regular basis which triggered this finding and the start for a new measuring technique.

The final recommendation will be made to the International Committee on Weights and Measures created by treaty in 1875. At this point the best option is the counting of atoms in Silicon. Russia is supporting this research as they have a nuclear lab that is able to create a test Silicon crystal that is 99.99% pure Silicon 28. This test crystal is planned to be a perfect circular sphere and is being tested using half a million places to determine its true shape. An intriguing characteristic of this perfect ball is that there is a visual test to determine if it is motion or rest; only a dust particle aimed at the object can tell.

The Kilogram is one of only seven measures that have remained unchanged since their creation in the 19th century. There were eighty copies made of the Kilogram by an English goldsmith, however only one survived and is now housed in the chateau.



The system of weights and measures in use in England has been developed over a period of more than a thousand years, and is an essential part of British culture. Imperial weights and measures, English weights and measures, Customary weights and measures - they are all the same, (almost!). The measures include: acres, bushels, chains, chalders, chaldrons, crowns, customary measures, drachms, drams, farthings, fathoms, feet, florins, foolscap, furlongs, gallons, gills, grains, groats, guineas, hundredweights, lasts, leagues, miles, minims, nails, ounces, pecks, pennyweights, pints, poles, perchs, pounds, quarts, quarters, rods, roods, sacks, scruples, stones, tods, tons, troy

ounces, wire gauges, weys and yards - you will find them all here!

1 ounce	= 8 drams
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Weights - The basic unit of weight in the British system is the grain - based on the weight of a grain of barley (but note that money was based on the grain of wheat - and that three grains of barley weigh the same as four of wheat). This grain is the troy grain - there is no other weight of the same name.

The *wool* pound was of 6992 grains, and was (of course) used for weighing wool. The clove, stone and tod mentioned above were also used.

The *avoirdupois* pound is the pound in general use today. As its name implies, it was intended to be used for weighing heavy goods. This pound is of 7000 grains, and is split into 16 ounces (each, therefore of 437.5 grains). Each ounce is divided into 16 drams (which my calculator makes of 27.34375 grains each - much more fun than metric isn't it?).

The *tower* pound was used for weighing coins, and was of 5400 grains. I believe the name *tower* comes from Tower Hill, the site of the royal mint. This number of grains comes from the traditional weight of an English silver penny of 22½ grains (Troy, or grains of barley - the same as 30 grains of wheat), and 240 pennies to the pound. The tower pound was abolished in 1527.

The *London* pound, or *libra mercatoria* (trade pound) was 7200 grains (i.e. 15 troy ounces). This died out around the middle of the 14th century. One London stone was of 12½ London pounds.

Avoirdupois Weights	
16 drams	= 1 ounce
16 ounces	= 1 pound
7 pounds	= 1 clove
14 pounds	= 1 stone
28 pounds	= 1 tod
112 pounds	= 1 hundredweight
364 pounds	= 1 sack
2240 pounds	= 1 ton
2 stones	= 1 quarter
4 quarters	= 1 hundredweight
20 hundredweight	= 1 ton

French Chateau located outside of Paris – Chateau de Breteuil



NB: The sack is not in common use. There was a 'Butchers stone' of 8lb until the end of 1939.

The *Troy* pound was of 5760 grains, and was divided into 12 ounces, so a troy pound is lighter than an avoirdupois pound, but a troy ounce (at 480 grains) weighs more than an avoirdupois ounce. The troy pound was declared illegal in 1878, but the troy ounce continues in use today for weighing gold. The troy ounce is split into 480 grains, and you will see 1/2 ounce weights marked both '240 grains' and '0.5oz'. However, the *apothecaries* system also has an ounce weighing 480 grains, being divided into 8 drams (sometimes spelled drachms) of 60 grains, each dram being split into 3 scruples, of 20 grains. To make things more fun, a 2 dram weight would be marked '3ij' - I think that '3' means 'scruples' (there being 3 to the dram), and the 'ij' being an old-fashioned way of quoting the Roman numeral 'ii'. It doesn't end there - there are 20 penny-weights to the troy ounce, so the 1/2 ounce weight mentioned above could also be marked as '3iv' or '10dwt'.

The Pavillon de Breteuil

The Bureau International des Poids et Mesures is situated in the Parc de Saint-Cloud, in Sèvres on the western outskirts of Paris. Its principal building is the Pavillon de Breteuil, which has been under the care of the Centre International des Poids et Mesures since 1875.

Troy & Apothecaries Weights	
1 ounce	= 480 grains
1 ounce	= 24 scruples
1 ounce	= 20 pennyweights

The first building for laboratories, the Observatoire, was completed in 1878 and extended in 1929. In 1964, on an extension to the site, new laboratories were built for the work on ionizing radiation; in 1984 a laser laboratory was opened and in 1988 a new library and office building was inaugurated.

The Pavillon itself dates back to 1672 when Louis XIV ordered his architect Gobert to build the Trianon de Saint-Cloud (as it was

originally known) for his brother "Monsieur". It took its present form in 1743, and the name Pavillon de Breteuil in 1785 when it became associated with the Baron de Breteuil. The building was seriously damaged in the Franco-Prussian war of 1870, but has since been restored to much of its former glory.

International Committee on Weights and Measures

The International Committee for Weights and Measures (*Comité International des Poids et Mesures*, CIPM) is made up of eighteen individuals, each from a different Member State. Its principal task is to ensure world-wide uniformity in units of measurement and it does this by direct action or by submitting proposals to the CIPM.

Member States include – France, US, Australia, Netherlands, Brazil, England, South Korea, China, Germany, India, South Africa, Italy, Russia, Canada, Japan, Turkey, Argentina and Switzerland

<http://strategis.ic.gc.ca>

Editor

Did you ever think that our kilogram would shrink in weight? How much does that package really weigh? What is the postage due on this package? Hope you enjoyed this article.

Measurement Canada

Measurement Canada provides a variety of services; each designed to ensure that consumers and businesses alike can make measurement-based transactions with confidence. Our mission is to ensure equity and accuracy where goods and services are bought and sold on the basis of measurement in order to contribute to a fair and competitive marketplace for Canadians.

Bibliography

Globe and Mail Tuesday May 27,2003

Shrinking kilogram sows mass confusion in labs

By Otto Pohl

(Synopsis of article)

English Measures - <http://home.clara.net/brianp/>

Chateau and International Committee - http://www.bipm.fr/enus/2_Committees/cipm.html