THE WALKING QUESTION MARK

Newsletter of the Grand River Heritage Mines Society

Always Digging For Answers

Winter 2003

Volume 11, Issue # 1

WHAT IS IN THIS ISSUE?

REMINDER: 2003 Memberships now due!
Individual -$10, Family-$15, Corporate - $20
Send membership dues to Ilse. Address - p.8

Bits and Pieces, by Jean Farquharson

A **Happy New Year**! May peace prevail in 2003! Our newsletter is crammed with news and articles!

*We had two enjoyable meetings in the Fall:
On Nov. 19, we held a joint meeting with York Grand River Historical Society, to share a talk by **Bruce Hill** on **Grand River Navigation.** 47 persons turned out for this meeting!
*We also held our annual **pot-luck** on Nov. 30th at Ilse Kraemer's, sharing excellent dishes, and ending with a fascinating presentation by Joe Clark about his trip to the wilds of Peru. Thank you, Ilse for being our hostess every year!

* Cathy has some exciting fall field trips to report on in this first issue for 2003.

*Your Executive has a report on some exciting Upcoming Events being planned:

* Ilse has written 2 articles on Mining - about *Silver in Bolivia*, and about a new technology, using plants called *Phyto Mining*.

* Your Editor developed an article on *Salt of the Earth*. While recuperating from a fall and after reading a newspaper article on salt mining in South America and a biography of William Hamilton Merritt, my curiosity was piqued and I began to investigate salt mining on the internet.

* Rae Tomlinson has contributed an article about the *Grand River Navigation Company*, with which William Hamilton Merritt was involved. This is based on Bruce Hill's talk in November.

COMING EVENTS:

*At an **Executive meeting** on February 1st: Cathy and Ilse announced that exciting plans are being made for some **spring field trips**. The plans will be announced later.

*Celebrate **Hiram Capron's birthday** on Sat. Feb 8th at Paris Public Library. Cake-cutting-12:30.

***Gem & Mineral Show** is April 5th & 6th.

*Our **Annual meeting** will be on April 26th (tent.)

*Jean reported on a meeting with **Pixeldust Studios** asking for support in making a **historical video** of Brant and Norfolk

Counties. They will meet with us in the late spring for historical information.

*A joint **Walking Tour and Picnic** is being planned with York Grand River Historical Society for May or June in the Mt.Healy/York area. Details later.

*Mike is working to get a **Paris Mines plaque**.

Field Trips by Cathy MacArthur

Sept 29-Cavan's Flats

Cavan's flats is a flood plain located south of Paris along the Grand River. It borders the high terraces where the Torrance mine tunnels were located. The Torrance family emigrated here in 1851 from Scotland and settled Hazel Green Farm. Shortly after, the Cavan family followed them to Canada and the Torrance farm was divided into two farms, Hazel Green and Oak Bank. Mary Cavan and Tom Torrance were brother and sister. Tom Torrance drowned while crossing the Grand River during flood time at Paris in a basket and rope pulley system used to cross the river.

Cavan's plaster farm house was built in 1852 and has remained in the Cavan family for five generations. Cavan combined the two farms again in 1876. The Torrance house changed ownership many times until it was torn down in the 1970's.

Industrial activity was carried on in this area many years ago. Mining below the Torrance farm ceased in 1911 after landslides buried the mine entrances. Across the river from here, below Mile Hill gypsum was mined; first, from the exposed gypsum seams along the bank of the Grand River, and then dug from drifts far under the hill. These mines were worked for many years by Thomas Coleman and his partners, then by Gill, Allen and Brown before they were bought out by the Alabastine Company of Paris.

Back on the flats, the remains of an old hydraulic raceway cuts across the field from the west side of the flats over to the far east side, joining the river again at the point where the spring-fed Torrance creek empties into the Grand. The remains of two kilns and a number of old foundations may be spotted along this raceway. A number of old, crudely made bricks are found along the river's edge, indicating the possibility of a brick works located here. A. cable at one time stretched from Mile Hill across the river to the flats, its purpose unknown. A number of old overgrown roads cross this area, including one road that ran from the end of Willow Street under the high level bridge in Paris, south along the east side of the river to the flats.

Many Carolinian species including sycamore, hackberry and shagbark hickory grow in this area. Massive old oak trees are scattered among the other types of trees here. Osprey, eagles, red tail hawks, ducks, and the occasional swan gather in this area along the river. Until recently, a family of wolves hunted this territory, but moved on after human activity increased. Coyotes, whitetail deer, possum and other mammals are plentiful here. Thirty years ago a rare Eastern Spiny softshell turtle was found in the large pond located on the flats.

Access to this area is possible by following the Grand Valley Trail which cuts through the flats. Please note that this is private land.

October 20-Barker's Bush

Located west of Paris along the Nith River, this area consists of crop land, rolling hills, wetlands and forested sections. The bush is named for Jason Barker, an early farmer whose cobblestone farmhouse can be seen on Barker St. Hiram Capron and Norman Hamilton were previous owners of this land.

Old overgrown roads lead down and along the river where remains of raceways, a mill pond and old foundations can be seen.

Gypsum mining was carried on along this stretch of river. A former section of Governor's Road once passed through here until it was relocated to the south.

Another road, named Distillery Road, ran along the south bank of the Nith River from behind Wendy's General store in Paris through Lions Park to the Patton and Currey Distillery on the west bank. Here also was the location of Paris's first golf course.

During our hike, we passed a native Indian site and climbed Sports Hill. At the top we had a spectacular view of the Town of Paris. We descended the hill to the new walking bridge built at the site of the

old Penman's Dam which was dynamited years ago. Old timbers can still be seen in the water under the bridge. When the dam was still in place, the waters above were used for skating and curling in the wintertime. Curling rocks are occasionally found downstream. One of Paris's best known characters, Bobby West, used to offer boat rides here. His home was located near the east side of the new walking bridge.

This new bridge, thanks to a fund-raising group, the GRCA and Lions Club, gives access to the trails along the Nith River. Other access points are Lions Park off Laurel St. and Victoria Park behind the Paris Cemetery.

Nov 17 - Capron Mines

For this hike, Ron Hansen met me at the parking lot close to the dam in Paris. The snow made the short walk to the Capron mines slippery. These tunnels are located in a shale outcrop, near the dam. Long since collapsed, the entrances still show the arched roof which added support to the mine. The gypsum seam is still exposed in areas near the mines. Two collapsed mine entrances can still be seen; a third is buried under piles of cement and garbage below the bowling greensouth of River Lane. Another mine directly south of Penmarvian collapsed in the 1970's, and a huge sinkhole appeared in the lawn and was filled in. A number of mines are located upstream of here. A trip to one of these mines had to be cancelled owing to the snow making the descent to the mine unsafe. Hopefully this trip will be rescheduled for spring.

After the Capron Mine hike, Ron Hansen invited me back to Hamilton Place, located directly above the Capron Mines. Thanks to Elizabeth and Ron for a guided tour of their beautiful home. It was like stepping back into Paris' history.

Silver Mining in Bolivia,

by Ilse Kraemer

The city of Potosi in Bolivia was founded by the Spanish in 1545. They quickly found out that the local Indians had silver mines. Cerro Rica - "rich hill" - was a very silver-rich outcrop in this area. This alone enticed the Spanish to remain and take over the mines from the Indians. The unending supply of silver attracted people from all over and soon the population grew to 200,000.

The climate there is cold and harsh. The climate and the mining have not changed at all in 400 years. The silver is still carried out by wheelbarrow load for 15 cents U.S. for the miner. The mines themselves are roughly hollowed-out tunnels, lighted by gas lanterns. Since this is a high altitude area, the air is very thin and the air quality is worse inside the mines. Before the miners go into the tunnels, they stuff their mouths with coca leaves - the same raw materials from which cocaine originates. The cocaine in the leaves helps the blood to carry oxygen to the brain much faster and makes the body feel strong. The miners are lowered into the shaft by rope, operated by hand-crank. In the tunnels, the miners drill holes into the rock for inserting dynamite.

The god of the mines is "Tio-Jorge", guardian of the mines. The miners carried a statue into the tunnels looking like a devil with horns. On weekends they put gifts around the statue. For these miners, nothing has changed in their mining technique in the last 400 years.

Source: *Special to the Star* article, Toronto Star, May 16, 2002 written by Shelley Snowdon

Phyto Mining, by Ilse Kraemer

This article is written from my own observations and from information taken from an article I found in the *Regina Leader Post*, written by Sylvia MacBean, using research being done at the University of Saskatchewan

Phyto extraction means: to extract something from a plant with a certain characteristic or habitat.

The latest and most interesting discovery is of some species of plants that can absorb certain chemicals or heavy metals from heavily-contaminated areas. A badly polluted area is at Port Colborne, along the Welland Canal. For a long time, nickel was refined in this plant. The last few years, I did some research about this brownfield site. Last year I observed that many areas around the factory, which were always covered with weeds, were roughly cultivated, and rows and rows of plants neatly planted in numbered squares. This was

in the most polluted area. The plants are called *Golden Alyssum*. They will grow for 2 to3 years. After that, they are harvested, dried and burned. The ashes are almost pure nickel. Workers will scrape the soil up to 5 inches, and re-plant. The soil is then clean. After a few years, it is hoped the whole area will be clean.

Aramanth is another plant which absorbs chemicals. In Australia, mining companies are using certain plants to recover gold from their gold-mine tailings. The same burning process is used.

Research in this new field is carried out by the University of Saskatchewan to find plants that will absorb and clean up old spills. The University of Guelph is engaged in phyto research; at present they are using *scented geraniums* to extract cadmium. Geraniums can tolerate fairly high concentrations of these materials.

There are other plants that can accumulate cobalt, mercury, nickel, zinc and lead. A lot more research needs to be done to find out what conditions a plant needs to be able to grow and do this work. It is intriguing to study this new direction to clean up contamination cheaply.

The plants were always there, but no one knew about their capabilities. One needs to go to badly contaminated areas to find what vegetation seems to thrive, such as a variety of mushrooms, especially the *Inkhead.* Beware what you pick and where you pick it!.

Salt of the Earth

by Jean Farquharson

Salt has been used by man since before recorded history, and since it has so many uses, it has been important as a medium for trade. . Slaves were traded for salt, from which comes the expression "not worth his salt". From the Roman word *sal dare*, which means *to give salt,* is derived the word soldier, because Roman soldiers were paid in salt as well as gold. The word *salary* is also derived from *sal* because people were paid with salt. Anyone who sat at a feudal lord's table "below the salt", was not as important as those who were seated "above the salt": i.e., closer to the lord of the manor.

Animals worldwide travel for miles to find a *salt lick.* It composes 0.9% of the human body. It is also a nuisance when it gets in our soil or gets into the drinking water. Food scientists at the University of Guelph are trying to solve a global agricultural nightmare - the salt poisoning of fertile croplands. They found that two weeds called *salicornia rubra*, commonly called *red swampfire* or *saltwort*, and *Batis maritima*, also called *saltwort*, will grow in conditions too salty for most food plants. These plants are rich in protein, high in the healthier kind of oil, a source of Vitamin E, and 60% composed of a starch that can be used commercially. The U.N.'s Food and Agricultural Organization is concerned about the shortage of fertile crop land and fresh water for irrigation in developing countries. They need salt-tolerant crops to feed the exploding populations over the next three decades. One-third of all irrigated land world-wide is already poisoned by salt and related mineral salts leached from rocks. They believe that over two million hectares are affected in the Canadian Prairies, with crop yields reduced by over 25%.

In its natural state salt is normally found as rock salt, called *halite* (from the Greek word *halos*, meaning salt). Scientists believe that, initially, seas were not salty. It took millions of years to wash out some of the salt locked up in the rocks of the continents and for the waters to become brine. It is usually found in and around salt springs, salt lakes, in the ocean, and deposited deep in the ground. It is sometimes deposited in domes in the Michigan Basin, and serves as a trap for oil deposits.

The three major salt formations in Canada which are used for commercial extraction are in Ontario, western Canada (a broad belt reaching from western Manitoba across to north-central Alberta), and in eastern Canada. It is estimated that 209 million tons of salt were mined in the world in 1999. Salt has over 14,000 uses, the most common being in the food industry (in diet and as a preservative), in industrial chemicals, de-icing roads and highways, as a water softener, to stabilize dyes, and in the pulp and paper industry.

Since the Mines Society studies the history of mining mainly in the Salina formation, and salina means salt, we are curious as to where the deposits are and how they are related to the gypsum deposits. Salt is hard to obtain very far inland from seacoasts.

A saline spring is a curiosity and a rare natural feature. It consists of little more that a small clear pool of mineralized water. If you look closely, you can see hydrogen sulphide gas bubbles rising to the surface. It may smell strongly organic or sewery and most unpleasant because it contains sulphur and other minerals as well as salt.

Where does this mineral water come from? As rainwater percolates downward into the ground, it finds its way deep underground through geological layers of rock which were deposited when former oceans evaporated millions of years ago. The Salina (meaning salt) formation in our area is part of this layer that contains salt and gypsum as well as several other minerals. The water dissolves the salt and other minerals, and, amassing considerable pressure from the overburden of rock and soil, it is forced up to the surface in the form of springs, artesian wells, or licks and seeps.

Its role in Ontario history is intriguing. The salt springs frequented by native peoples and animals seeking salt became known to the early pioneers who desperately needed salt for many uses including salt as a food preservative and fertilizer. The family's supply of pork was salted and preserved in barrels. They depended on the salt from these springs. According to Jean Waldie, "It has been said that David Burch made salt from a salt spring near the location of the Salt Springs Church."near the village of Newport. The settlers boiled off the water from these springs in huge pots to obtain salt crystals. They and the Native Peoples sometimes harvested the salt-resistant plants growing around the pools, dried them and added them to their pots of food to get a salty flavour.

Augustus Jones, when he resided at Stoney Creek is quoted: "About 2 miles south was Green's Mill, on Stoney Creek, and 3 miles southwest was Salt Springs, where salt works were in operation for some years." He lived there from 1797 to 1818.

From *The Biography of the Hon. W.H. Merritt, M.P. of Lincoln, District of Niagara* we have the following excerpts:

"In 1793, Governor Simcoe felt the want of a home supply so much that he established works on a small scale at one of the licks, in part of the District now known as the Township of Louth."

"During the War of 1812, the scarcity was so great that each one was allowed to boil his own salt at the Government works. It was worth from $10 to $15 per bushel, and very scarce at these enormous prices..."

"One of these salt springs was on Mr. Merritt's property on the Twelve [now St. Catharines] among his other undertakings he had the spring cleaned up and properly curbed; and in August, 1816, he commenced to manufacture salt simply by boiling the water from the natural spring."

1818: "The salt works became in a flourishing state. We find the following entry in his journal: 'Loaded 50 barrels of salt on schooner *Industry* for Port Hope.'

"Afterwards he increased the works...[1823] - The salt works are doing better than ever. Good sales at $4 per barrel.."

Sometimes health resorts were built around some of the larger mineral springs. By 1826 Merritt and his partner in the salt business "had fitted up a bathing establishment, where hot or cold saltwater baths could be obtained, which it was believed would be of great benefit to invalids, and would eventually become a

public resort as famous as the spas of Europe."

Standing along the banks of the Nith near the old mines in downtown Paris, one can sniff hydrogen sulphide. The Bradford Hotel in Paris became a spa when purchased by a farmer named John Ealand. In 1888, he renovated, expanded it and renamed it the Arlington. While drilling for oil on the banks of the Nith, sulphur water springs were discovered. Sulphur water baths were popular and considered to have curative properties, so Mr. Ealand had the lifesaving waters piped in for baths. People flocked from afar to the Arlington to take the cure. However a few years later the sulphur water began to come into the tubs a dark brown colour, staining the tubs. The water passed through iron pipes that had started to corrode. Although it was just as efficacious, the dainty ladies refused to use it, and the Arlington as a health spa ceased to be.

Mr. Ealand decided to build a new hotel for use as a sanatorium on Distillery Hill on the south side of the Nith near the springs. He would use wooden pipes this time. Mr. Ealand bought up all the property around the springs to gain control of the springs and for the entertainment of guests. He named it Arlington Park. Work began on the new tanks, and the foundations were laid and plans drawn up, when in 1901, Mr. Ealand died, and construction stopped. The beautiful Arlington Hotel has been reborn in Paris but it is no longer a spa.

Salt was expensive to import and was scarce until the large deposits were discovered at Goderich in 1866 and mines opened in southern Ontario. Salt was so inexpensive to mine that the small businesses could not compete and closed down.. One of its early uses was as a fertilizer. (It must have been the other minerals that came with the salt that helped the plants.) From the *History of the County of Brant (1883):* Three quarters of the farmers in North Dumfries Township used salt and plaster for fertilizers. They spread from 80 to 100 pounds per acre, plaster for clover and grass, and salt for cereal.

Salt was not always processed from salt springs by boiling water, but by evaporation. An article in the *Toronto Star*, November 23, 2002, describes a very unusual salt mining operation in Peru, that dates back to the Incas. A natural spring exists at *Cachi Rackay*, the Quechua word for *Salt Mountain*, with the water super-saturated with sodium chloride. Its flow is directed into an ancient canal system built by the Incas almost 600 years ago, which directs the brine to an 80 hectare area where about 5000 salt pans or evaporate beds were created, each about 5 square metres, that are "staggered like steps on the side of the mountain." This spot, called *Salinas* or *La Salineras*, has been mined for generations by daughters who have inherited their pans from their mothers. Every week, these dignified, independent entrepreneurs leave their homes in the village of *Maras*, in the *Sacred Valley*, pack up their babies on their backs in colourful blankets, and climb the mountain to their work, mining the salt that has been left in their pans. Between 100 and 300 women in the area mine and maintain the pans. One pan produces up to 80 kilograms of top grade salt per month. The water usually takes about 3 weeks to evaporate in the sun, leaving the salt behind. Used for human consumption, it is sold for about one *sole* per kilo, equivalent to 50 Canadian cents. They receive less for a lower grade of salt which has dirt mixed in it, and is used for animal feed or fertilizer. "This salt is also offered to the gods in ancient ceremonies that remain an important part of modern agriculture."

Each woman may own several pans, and put their earnings in the family pot, proud that they can contribute independently in this macho-dominated society. This way of life is an important part of the tradition of these salt women of La Salinas.

The next time a family member says, "Pass the salt, please," we can now remember our salty heritage, and respect its use in the future ecology and economy of our planet.

Calamai, Peter. *The Weed That May Feed the World*. Toronto Star, October 12, 2002, page F5.

Merritt, J.P. *Biography of the Hon. W.H. Merritt, M.P. of Lincoln, District of Niagara.* St. Catharines, M.S. Leavensorth Book and Job Printing Establishment, 1875.

Jean Waldies' Notebook. April 28, 1944.

Warner & Beers. *History of the County of Brant.* 1883.

Arob, Paula. *Women of Peru Mine the Salt of the Earth.* Toronto Star, Saturday, November 23, 2002.

Navigation On The Grand

by Rae Tomlinson

1850 was an exciting year to be alive with the sights and sounds of the river boats on the Grand River. This is one of the things that the Mines and York Grand River Historical Societies learned as thy heard Bruce Hill speak on the fascinating topic, "Navigation on the Grand."

York at this time was a thriving village with three stores, three or four inns and taverns, two sawmills, a gristmill, three tailors, two cabinet makers, four shoemakers, two blacksmith shops, and even a physician and surgeon. Besides York, Dunnville, Indiana, Sim's Lock, Seneca, Middleport and Brantford would all benefit or have their origins from the canal system.

In fact, the early 1800's is known as the Canal Age. The Lachine Canal was built in 1824; the Welland opened in 1829; and the Rideau in 1832. These canals not only opened up large areas for settlement but also were meant to offset the threat to Upper Canada commerce from the Erie Canal.

William Hamilton Merritt, who was mainly credited with the success of the Welland Canal, began to actively promote a navigational system for the grand River, since he felt that it would be beneficial for the Welland Canal trade.

On December 15, 1827, Merritt arranged a meeting at Lovejoy's Tavern in Brantford to announce plans for a Grand River Navigation system from Dunnville to Brantford.

Although the initial response was positive, it would be another five years before the Grand River Navigation Company received its charter.

Money was the main problem since Upper Canada was basically a society of poor people and few in number. For example, the Nelles settlement along the Grand River near York only had 30 settlers covering 4254 acres. The shares for the company were eventually divided among David Thompson - 1/4; William Merritt - 1/4; the Native People - 1/4: and the general public - 1/4. Thompson and Merritt became alarmed at the lack of funds and warned Colborne, the Lieutenant-Governor. They claimed that it was doomed to failure and withdrew their funds. To alleviate the problem, in 1835, the Native People acquired the abandoned shares and, without their consent, owned 80% of the company.

In 1834 the project was started. Nothing was needed between Dunnville and Cayuga. However, between Cayuga and Caledonia five locks and dams were required. Number one was at Indiana with a two foot lift; the second at York raised the water level five feet; number three at Sim's Lock; was an eight foot lift; seven feet at Seneca; and the final lock and dam were at Oneida. For a distance of nine miles there was a 43 foot rise in the water level. No structures were needed from Caledonia until Peter Green's some three miles below Brantford. In 1848 the canal system was completed to Brantford, again with the aid of the Native People's money.

The walls of the locks were constructed of timbers and filled with rubble. They were about 6 to 6 ½ feet thick at the bottom and five feet at the top. The canal was six to eight feet deep and had planks spiked to timbers to absorb the shock from boats scraping the walls. The wooden lock gates each had an 18 by 24 inch circular hole to allow water to enter or leave the lock. This was a slow method for removing the water.

John Jackson lived for some time in York and was an excellent chief engineer. John was skilled and devoted to his task of building and maintaining a successful canal system right up to his death at Seneca. Unfortunately many of the canal contractors did not share his attitude. They were inexperienced and even incompetent at canal construction. This meant that there were serious mistakes made and frustrations from delays. In spite of these problems and the cholera epidemic of 1834 the Grand River Navigation Company opened for business in 1835. Some of the locks, however, were not completed for two more yrs.

Industries and villages quickly grew around the locks and dams and with the water levels raised, business was flourishing along the river. In one year over 300,000 cubic feet of lumber floated down the river in rafts made from the logs themselves. The wood consisted mainly of pine, white oak, beech and maple. Other examples of commerce along the river include:

246 barrels of whisky and beer, 1849
25,000 barrels of flour, 1850
221 barrels of pork, 1850
421,191 bushels of wheat, 1853
2,576 tons of plaster of Paris, 1854

BUFFALO AND BRANTFORD

GRAND RIVER LINE.

The Steamer EXPERIMENT leaves Canada Dock, BUFFALO, every Monday and Thursday, at 7 p. m., for DUNNVILLE and CAYUGA, connecting at the latter with the New Steamer QUEEN, for BRANTFORD, CALEDONIA, and other Villages on the Grand River, and with Stages to HAMILTON, PORT DOVER, PARIS and GALT.

A. Bennett, Agent, Brantford. | Wilkes & Co., Agts., Buffalo.

Fare from Buffalo to Brantford—$3 Cabin, $2 Deck.

BUFFALO & PORT STANLEY.

The Steamer WAVE leaves Canada Dock, BUFFALO, every Tuesday and Friday at 7 p. m., for PORT DOVER, PORT ROWAN, PORT BURWELL, PORT STANLEY, and RONDEAU, connecting by Stage with LONDON, SIMCOE, and CHATHAM.

Rouse & Davison, Agents, Port Stanley. | Wilkes & Co., Agents, Buffalo.

Fare to Stanley—$3 Cabin, $2 Deck; Stage Fare from Stanley to London $1.

long.

After the Brantford canal system was opened in 1848, three full-skirted schooners, the *Tuscarora, Onondaga* and *Mohawk* carried produce from Brantford to Dunnville and beyond. From 1834, steam vessels were seen on the river. The steam tug boat *Charles Robb* and the steam paddle wheeler *H.M.S. Colborne* were stationed at Dunnville during the Fenian raids and remained in the area until 1842. During this same time period passenger steam paddle wheelers were used. In 1848, there were 3302 steam boats that passed through the Grand river locks; many of these were passenger vessels. A paddle wheeler called the *Brantford* had an average speed of 5 knots or six miles an hour. Two of the most popular paddle wheelers were the *Red Jacket* and the *Queen.* The latter was known as the monarch of the Grand River and held 40 passengers with 13 crew members.

Unfortunately the river traffic could not keep the canal system afloat. There was always a lack of money for its construction and maintenance. In spite of the river traffic the tolls were insufficient to prevent them mounting massive debt. By 1860 it was finished as a useful river transportation system. The railway would ensure its permanent demise. However the stories live on from this dramatic time in the history of the Grand River.

At York, in 1850, a person could enjoy eating oysters, smoking fine cigars, and drinking good wines and liquors.

Flat bottom boats, known as scows or lighters, was one way that goods reached their destinations. These wide-waisted unattractive boats were often pulled along the tow path and prodded along by small steam tugs. Although less frequent and more expensive to operate, self-propelled scows were used from the 1830's on. One scow, the *Echo*, sank in Cayuga in 1855 while the *Alexandria* still operated out of Brantford in 1869.

The easily recognized belles of the Grand River were the magnificent schooners. One, the *Zephyr*, was a two-masted schooner 109 feet

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This newsletter is edited by Jean Farquharson. We are not responsible for misinformation nor errors. We are looking for more information about the mining industry in Southern Ontario. Submissions are welcome. **The deadline for the next newsletter is March 21, 2003.** Please send correspondence to Jean Farquharson, RR # 3, Paris On N3L 3E3. Phone 519/442-2156 Fax 519/442-2373. E-mail: <allanf@ golden.net>. For membership inquiries, contact Ilse Kraemer, 23 KingsHill Lane, Brantford ON N3T 6A3. Phone/Fax 519/756-6634.

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