

**Toronto Telegram, September 26, 1942**  
**Schooner Days, DLVI (556)**  
**BY C.H.J. Snider**

## **SALUTE TO THE MAN WHO TRIED**

**LATE F. W. KNAPP, Prescott, and his \$125,000 experiment in rotor traction, Toronto Bay, 1897.**

RAISE the hat to Frederick Augustus Knapp, who had the vision of rolling over the ocean instead of through it and had the energy and the courage to put his dream to the test. He spent the best years of his life and what was a “fortune” in his time – trying out the idea. His reward was disappointment. But who can say his theory was worthless, when to-day millions of acres are cultivated by caterpillar tractors and millions in armament are moved by the same pattern, the military tank?

Knapp’s idea was a forerunner of this. Observing that a lead pencil would roll along his desk top with even the slightest assistance of gravity, he grasped what might be called the rotor principle of power. Fletner applied it, with more but still not complete success, to rotor ships, only a few years ago. The Fletner plan was to drive ships through the water by rotating cylinders upright in the air. Knapp’s was bolder and simpler, – to let the ship roll herself over the water.

He encountered many difficulties. Got over the one of making her roll by using a steam engine in cradles in each end, which remained stationary while the hull revolved around them. Got over the traction difficulty by attaching flanges to the smooth outside of the hull. But could not solve the problem of getting the ship out of the hole made by her own displacement, so that she would roll forward on top of the water instead of rolling around in it.

That was the sticking point. The roller boat started in a hole and was always rolling up hill. It was as though Mr. Knapp’s pencil began to roll in a groove in the desk and stayed there.

Still, raise the hat to a man who tried. And reverently. Francis Augustus Knapp died only last week at his old home, The Manor, Prescott, in his 89th year, honored for his legal and scholastic attainments, his experiments and inventions. He was Prescott born, and a graduate of McGill.

## **SHOWBOAT OF THE NINETIES**

Toronto harbor has been the home of inventions, from the Toronto Yacht, built at the Humber in 1799 to the Peninsula Packet, first island ferry propelled by horses driven around a circular track, and Tinning’s cigar boat, anticipating the torpedo.

Knapp’s Roller Boat was the sensation of the gay nineties on Toronto Bay, when a dozen schooners wintered here regularly, and a dozen more irregularly, and motor boats had scarcely crept out of the naphtha launch stage.

The late Capt. W. J. Stitt of Toronto left these lively recollections of the Roller Boat,

which he regarded with anything but favor. He had to tow it. He respected Mr. Knapp, whom he knew well – but not his “roller baby,” which he felt he knew all too well. He wrote:

### **HELPED WITH THE BUILDING**

In the seventies Frederick A. Knapp was a rising young lawyer in my birthplace, Prescott, Ontario, on the St. Lawrence River. He had watched all the different water craft, pass up and down the river and noted their snail-like pace and a new idea came to him of a quicker transportation.

Thus was born in his brain the plan to build a vessel to roll over the water instead of having to force through the elements and thus many years later came into existence the famous Knapp’s Roller Boat.

My father was a resident of Prescott then and ran a carriage building and iron shop on King street just east of where the Alexandria Hotel now stands, and Knapp had him help in getting the plans ready and also assist in the building.

There was no laying of the keel for it had none, being just a double tube of steel, 110 feet long and 22 feet in diameter, with a small high pressure engine and boiler suspended in the inner tube on a platform, a sort of climbing affair like a squirrel in a cage that rolled the outer tube that travelled or rolled over the water. One engine amidships was first planned. Ultimately there was one at each end. After completing his plans, Knapp had to make plans to finance his roller baby, as he called it, for when this one had proven a success he intended building a monster roller ship 800 feet long and 200 feet in diameter with a capacity of 4,000,000 bushels of wheat and a speed of 20 knots.

He had to raise some \$50,000 to build the baby roller and give it a trial. As the old saying goes, a prophet hasn’t much favor in this, his own country, and no one at home would assist him to provide, the finances, so he had to go to the Old Country for it. He arrived back in great glee and commenced building.

It was an uphill job, for in those days there wasn’t many up-to-date tools to roll and drill the plates and everything was done the “Armstrong way,” which made hard and very slow progress. My father helped him for about four months. Appointed lock master at Lock 27, Galop’s Canal, 10 miles east of Prescott, he had to relinquish his part in the construction of the craft and move down to his new job.

I quote from a Quebec paper the following:

“Mr. F. A. Knapp, the well-known inventor of the Roller Boat, is at the Chateau Frontenac. He has been here for two days and leaves this evening for England. To those who know nothing about Mr. Knapp’s revolutionary ideas of steam carrying boats his proposition cannot be regarded with any great degree of faith. But to meet the gentleman, converse with him and see his plans and drawings of his new boat, which is to have a trial as soon as he returns from abroad, is to readily believe that his new mode of carrying freight and passengers is quite

possible. In fact to the unprejudiced and ordinary intelligent person the problem seems quite plausible. But outside the main object of Mr. Knapp's new Roller Boat, which will cross the ocean, he has certainly achieved a great success in inventing a boat that will carry grain from the west through the canals cheaper by over 50 per cent, than any other boat now in existence.

### **MILLIONS FOR QUEBEC**

“The boat is a floating elevator, as well, and will therefore create a saving of much money. This is one reason for Mr. Knapp's special visit to Quebec to see the Board of Trade and other bodies connected with transportation. It is his first visit to the ancient capital and he is looking for a port to make the largest grain shipping port in the entire world. It will be larger than the largest anywhere by many millions of bushels. Among those who will be present at these trials will be J. Pierpont Morgan's chief engineer, J. J. Hill's principal man and many other representatives from all transportation bodies in the U.S. and Canada. The success of this great trial, gigantic as it may seem, means the expenditure of many millions of dollars in Quebec and the making of this city the largest and wealthiest in Canada.”

The roller boat was completed not in Prescott but in the Polson Shipbuilding Co's, yards at the foot of Sherburne street, Toronto, in October, 1897. Schooner Days was there.

### **MADE SEVEN MILES PER**

When launched at Toronto the roller boat contrived to roll at what the Globe said was 7 miles an hour. It didn't look it, and she didn't roll far or long. The Globe was then young and credulous, and believed in wooden boilers whose only defect was the occasional blowing out of knot holes and in burning ashes, whose principal defect was they wouldn't.

Many improvements seemed necessary and she was towed to Prescott in 1899 by a tug, getting aground on Mann's Point near Bowmanville on the way down. Capt. Stitt thus described her debut at Prescott, where the idea was born. “Flags floated and whistles blew as it took the water with a great splash. Knapp was there in all his glory and attired to the king's taste. It only took a short time to get up steam and give her a roll at the dock, and while the crowds cheered the lines were cast off and the engine started.

It was Monday p.m. (mother's wash day), the next unluckiest to Friday, I believe, and proved so. The wind was fresh from the north and blowing right across the river towards Ogdensburg, and away she went, but more by the wind than her engine, for the outer shell just seemed to turn around in the water without walking the ship over it and forward. To add to the confusion a snowstorm set in and she was soon lost from sight, but away she blew before the breeze.

Says a local paper: “Knapp's roller boat demonstrated on Monday its ability to roll. In a snowstorm with a stiff north wind it rolled (or blew) from Prescott across the St. Lawrence to Ogdensburg, but missed the entrance channel to the upper harbor and rolled into the soft mud on the big bar opposite the city and settled hard surrounded by snow and ice. Efforts to tow the ship off were unsuccessful and she may not be released till spring. The inventor, and some

stockholders who were on board were taken off in small boats and suffered considerably from exposure to the freezing temperature. The inventor sticks to his idea that he will yet make a success of it.”

The following day it was towed off the bar and returned to Prescott and moored in the slip and remained there for the winter. The next spring she had a shaft and propeller installed and she made about four miles per hour speed with the small engine she had in. So he came to the conclusion that he would make her a cigar-shaped craft and lengthen her to 250 feet and install more power. This was during the summer of 1902, I think, so he made arrangements with the Montreal Drydock Company to lengthen her and finish her into a first-class cigar-shaped ship. She was taken to Montreal under her own power (end on, of course) and placed in the drydock and a new bow and stern was to be built on her, viz., 90 feet on the bow and 50 feet on the stern, to make the ship 250 feet in length as stated above.

### **TOWED BACK TO TORONTO**

During the early part of the summer of 1903 alterations had proceeded to the point of having the 90 feet built on the bow up about five feet above the water line and she resembled for all the world a sugar scoop. The work had been slow and they needed the space in the dock, as some good jobs were looming up, so they ordered the removal of the Roller Coaster. This is where I come in for my share of trouble with this marine contraption, as Knapp had contracted with the Canada Starch Company, owners of the big tug “*Cardinal*,” to tow the Roller Coaster or Sugar Scoop from Montreal to Toronto. I being captain of the “*Cardinal*” at that time was ordered to go to Montreal and make the transfer. And it was the worst towing job I ever had in my many years in the tugging game, much worse than the time I had towing the Christopher Columbus Caravels in 1893, as described in a former instalment of “Schooner Days.”

With the salt water crew who had never been up through the canals, the small blade of a rudder that had no effect on the ship at all, and the sharp, unfinished bow plates cutting my towing hawsers when she sheered from side to side, it was certainly some conundrum to do anything with her at all. Knapp came along with me on the “*Cardinal*” to keep an eye on his idol. Three times in the Soulanges Canal his roller baby got hungry and dove into the nice soft canal banks and scooped a mouthful of earth out.

It was one continuous round of troubles in all the canals, but our biggest occurred in the currents between Cornwall and Prescott, for she broke away no less than four times, sheering back and forth, cutting our towing hawser off on the sharp bow plates, and before we could get a line on her, went down broadside over the shoals. That was the time she really did roll and lived up to her name.

When we finally reached Kingston Knapp wouldn’t let me tow her up over Lake Ontario, but insisted on going by the Bay of Quinte and follow the shore from Presque Isle to Toronto. As the “*Cardinal*” drew too much water to pass the Telegraph Narrows and Murray Canal, I had to engage the tug “*Beaver*,” a smaller tug, to tow her from Kingston to Presque Isle. He (Knapp)

also made arrangements for another lake tug to tow her from Presque Isle to Toronto, so I was released and went back to my own trade again.

She did finally get to Toronto and lay at Polson's Yard for some time. She then broke loose one dark night and drifted out in the bay, and the Niagara boat, "*Turbinia*" I think, ran smack into her, doing considerable damage to the steamer. The courts awarded the owners of the steamer a considerable amount against the roller boat, but she had now no owners. She laid on the flats behind the St. Lawrence Market for some years and no one would take her as a gift; was a regular orphan. She resembled an old rusty stovepipe. When the Harbor Commission was pushing the docks out in the bay and filling in behind them they blew her up and covered her over and buried her good and deep for all time to come.

The contract price for the experimental boat when first launched was \$125,000. Mr. Knapp spent \$45,000 more in alterations, and tow bills and other expenses ran his outlay beyond \$200,000. If he did not succeed he made a good try.

### **PASSING HAILS "STATE OF INDIANA"**

Someone asked about the steamer *State of Indiana* recently, producing this reply from a kind correspondent signing off as below.

"The State Liner, *State of Indiana* was owned in Glasgow and sailed between Glasgow, Larne (Ireland) and New York, carrying passenger and general cargo. Ships of this line were all single screw and all had three masts, average speed about twelve knots. Tonnage about 5,000 gross. In latter part of nineteenth century, Allan Line absorbed State Line and changed names of ships. This may be the information asked for in 'Schooner Days' Sept. 12th."

– GARMOYLE.

### **OLD SCRIVER'S TUG**

In a murky bay, between Lake Vernon and Fairy Lake, resting at the foot of the thriving town of Huntsville lies old "Josh" Scriver's tug *Lino*, ancient and forgotten. *Lino* boasts character, creaking and groaning as the murky waters lap against her ancient sides, she fairly squeaks of the history and romance of days gone by.

"Josh" wasn't his real name. Even he doesn't know how he came by it. He was born James A. Scriver, in Bright Township, seventy-eight years ago. His mother, a direct descendant of the Mayflower pilgrims. His family was among the first settlers in Prince Edward County. He has records which prove this.

Old Scriver's Tug wasn't a luxurious ship, a pleasure craft, born to a life of ease – no, not by far. This was just a lowly tug, born to serve her master, Captain Scriver. In fact – she was the last boat to ply these waters, towing and handling the mighty logs of Muskoka lakes. But time changes many things – Old Scriver's Tug had her day. Trucks now are used to satisfy the generation's insatiable desire for speed.

Time had caught up with old “*Lino*.”

“*Lino*,” that’s the name painted on the bow – her original name, old Scriver having bought her twenty-eight years ago, after many years already of faithful service. She served him well, but now her sailing days are over. She reached the stage where it was a continuous battle between old Scriver and Father Time himself. Nearly every square foot has been reinforced with every conceivable type of wood.

Old Scriver too, was old, but wait! He had an inspiration. Why not make this his home for the future aboard his faithful old “*Lino*.”

A thirty foot craft, from bow to stern, he partitioned her off, in three cabins of equal size – a bedroom, kitchen and workroom. Here school boys dropped in to say “hello,” – to sit around and listen to the fascinating tales of the long ago. Here he mended his fishing tackle, varnished oars, and repaired his skiff – with the understanding faithfulness of his friend Scarlet, a large Kentucky Redbone hound. In his kitchen, an old wood-stove burned brightly – reminiscent of former days. Attention was caught by the cleanliness of it all – for this was an old sailor of seventy-eight, still true to the traditions of his “trade.” Everything shipshape and Bristol fashion. Old Scriver was even annoyed when I told him I had made a sketch of the boat. Had he known, he said, he would have tidied a little.

Scriver himself spends his time fishing and hunting. He likes to see the speckled trout get up the stream. Just yesterday he spent most of his time clearing away heavy rocks out of the creek, to help them in their travel.

Men like Scriver live on and on. He’ll be there. Old Scriver, sitting in the sun on the stern of his boat, his bright blue eyes contentedly guiding those remarkable hands, inventing, repairing, working.

This quiet little scene, comfortably resting in the corner of the bay, brings back a quotation – “this visible world is a daily miracle for those who see.”

So be the story of Old Scriver’s Tug.

– BARRY.

*(Caption) THE ROLLER BOAT, a double tube of steel plate, 22 feet in diameter, has been buried for twenty years in the “made ground” of Toronto harbor at the foot of Frederick street. Scrap value of so much steel at the present time would be great, but might not pay for the disturbance of what has been built over the hull.*