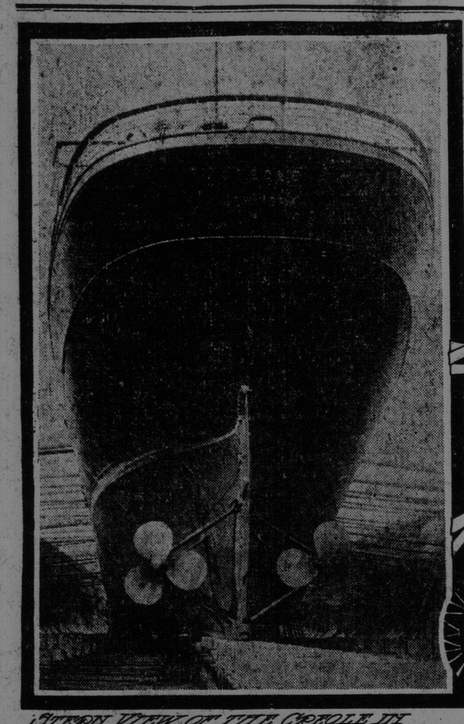
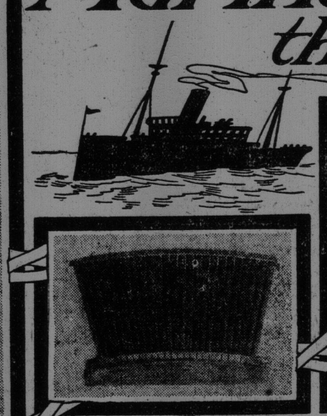
Marine Turbines, the New Power

BY THOMAS WILSON

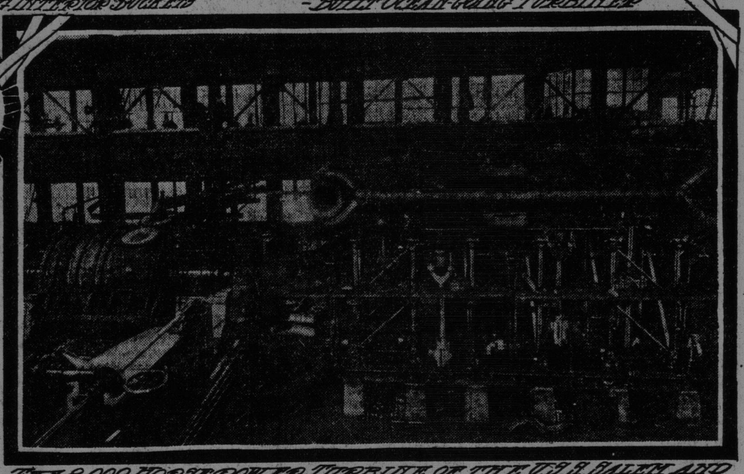


STERN VIEW OF THE CREOLE IN DRY DOCK, SHOWING ARRANGEMENTS OF HER TWO PROPELLERS

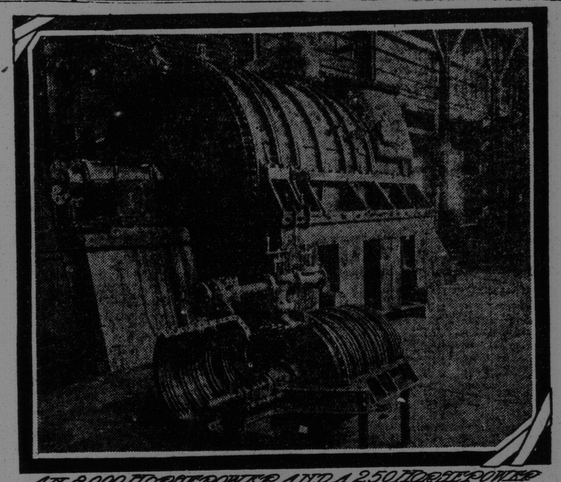


DETAIL OF TURBINE, SHOWING INTERIOR CYLINDER

THE CREOLE, THE FIRST DREADNAUGHT-BUILT OCEAN-GOING TURBINER



THE 8,000 HORSEPOWER TURBINE OF THE U.S.S. SALEM AND THE 8,250 HORSEPOWER RECIPROCATING ENGINE—OF THE U.S.S. TENNESSEE



AN 8,000 HORSEPOWER AND A 250 HORSEPOWER MARINE TURBINE, THE VITALS OF MACHINERY HAS BEEN REMOVED

It is a far cry from the simple steam engine of the Clermont, the first vessel to be propelled by any power other than sail to the new American turbine steamers Yale, Harvard, Governor Cobb and Creole, all of which have been built within the ing of giant engines of every description for the use with steam in the reciprocating class, the problem of thermodynamic ention of steam to do the work for mankind.

What do you suppose Robert Fulton would say or think were he to have the privilege of seeing the vast strides that have been made in the building and equipping of vessels since his steamer plied the bosom of the Hudson River? It is more than likely he would be surprised, to say the least.

Despite the vast strides in the buildpast year or so and mark another evolution in the development of the applicaergy conversion, without excessive loss, is little nearer solution than it was in the days of Watt and Newcomen.

As a matter of fact, and one that is constantly a source of much investigation by marine engine builders, the reciprocating engine, with all its improvements and increased efficiency, is not so much of an advance over the engine produced by James Watt. This pioneer in engine building had the idea of converting heat by energy by allowing steam to expand behind a piston against a resistance corresponding to the pressure. In this respect he formulated a rule that has been applied by every inventor and while the theory giving the ideal efficiency of the process of conversion of heat power is that steam should be expanded from maximum to minimum pressure and temperature and further, this expansion should be adibatic. As is well known, however, this cannot be obtained in practical operation for the losses in the ordinary engine are largely due to the initial condensation resulting from the alternate heating and cooling of the cylinder walls; losses due to clearances in the cylinders and valve chambers, and to the heat rejected in the exhaust. In addition there is leakage, conduction, radiation and incomplete expansion, all of which will help to swell the total loss of from 40 to 50 per cent. of the steam used.

These figures apply to the better class of engines, for with old machines the loss is much greater. Besides this thermal loss there is considerable friction to be overcome in the ordinary type of even the very best engines that can be made, while there is of course much individuality among engines, some are more economical than others by reason of their type or where they are used, the percentage of friction will vary from 6 to 16, yet 10 per cent. is probably a fair average.

This being the case, the heat units utilized as work on the piston amounting to, say 50 per cent, of those available in the steam supplied, the total effective power delivered on the shaft would be about 45 per cent of that available in the steam.

In view of these defects, and with a full appreciation of the standard of excellence and efficiency of the modern reciprocating engine, was it any wonder that scientists have declared that there has not been much improvement during the past century or more?

Power, mechanical and personal, has been sought, in all ages and for the past hundred years the development of the reciprocating engine has received so much attention that it has become generally believed to be the ideal power despite the faults named above. Electricity, too, has been taken up and developed to a remarkable degree, but it has remained for Mr. C. A. Parsons, of England, and Mr. Curtis, of this country, to bring out a new application of an old, old theory and to produce what promises to be the coming power for merchant and naval vessels. This new power is the marine turbine engine, wherein one has the direct application of steam to "wheels within wheels" attached directly to shafts for the turning of the propellors.

The most remarkable feature of the turbine is that it is not nearly so tall as the standard type of marine engine and thus it might be said to hang closer to the centre of gravity of the ship. For instance, this table of dimensions will demonstrate:—

TURBINE.

120-inch, 7-stage, 350 revolutions per minute.

	Feet.	Inch.
Length, over all	16	2 3-4
Width, over all	13	6
Height	12	6
Center to center, main bearings	18	6
Weight	102 tons	

EXPANSION ENGINE.

32 1-2 inchx53 inchx61 inchx61 inchx48 inch stroke; 120 revolutions per minute.

	Feet.	Inch.
Length, over all	33	6 1-2
Width, over all	11	3
Height	21	9
Center to center, end bearings	25	3
Weight	153 tons	

By this there will be seen that there is with these two types of engines of about the same horsepower considerable in favor of the turbine, owing to its taking up less space in a part of the ship where every extra foot counts for much, for it means additional bunker room.

The first turbine was a land engine—that is to say, it was developed for land uses, and the first inventor was Hero, of Alexandria, several centuries ago. Then followed the use of the turbine, with water and gas as a propelling power, but for a number of years it was not deemed suitable for vessels, and there was but little interest shown in it by naval architects.

In 1899 the maritime nations of the world sat up and took notice, when it was learned that the British government was building a turbine torpedo boat, and in September of that year the little craft, the Viper, was launched. While she was of precisely the same dimensions of other torpedo boats, the Viper demonstrated that she belonged to a new era, for her engines, which weighed 7 1-2 per cent. less than the reciprocating engines of her sister ships, gave her a horse-power of 12,000 and a speed of 37 knots, 7 knots faster than her sisters. Following the Viper came the Cobra, but before these craft could be given a fair trial both were wrecked and this, to some extent, retarded the development of the turbine.

Several merchant turbiners for crossing the English channel were built, and then followed the Allan liners Victorian and Virginian. Latter came the great Cunarders Lusitania and Mauretania, and now practically every nation is looking forward to adopting the turbine for war and merchant craft.

The first American-built turbiner was the steamer Governor Cobb. She is equipped with the Parsons type that, so far, has given complete satisfaction. The Governor Cobb is 300 feet over all, and while her contract speed was only to have been 17 knots she developed 21.66 without difficulty.

The turbiners Yale and Harvard, that ply between New York and Boston, were turned out. These steamers, which rank as the finest of their class afloat, are 407 feet 4 inches over all, and the Yale on June 29, last year, made a record for an American-built steamer by running from New York to Boston in 13 hours 17 1-2 minutes, her average speed being 21.45 knots, or 28 miles an hour.

The Governor Cobb, Yale and Harvard are inland and coasting vessels. The first American turbiner for deep-sea work was the Creole, owned by the Southern Pacific Railroad Company. This vessel is much larger than either of the other American-built vessels, being 440 feet over all and having a capacity of 420 passengers and 3,000 tons of freight.

The Creole is equipped with two 120-inch, seven-stage Curtis turbines of 4,000-horsepower each with two propellers which, on a displacement of 10,000 tons, give her a speed of 16 knots.

The development of the turbine, or rather its almost general use, is surprising when it is considered that the first application of it to a vessel was in 1901, while today the largest battleship in the world, the Dreadnought, and the giant ocean greyhounds of the Cunard Line, representing the latest and most modern in the naval and mercantile marine, are equipped with these wonderful machines.

The United States government has adopted the turbine and the new scoutship Salem will have in her an 8,000 Curtis type turbine that will probably put her into the 30-knot class. It is practically certain that the next American battleships will also have turbines instead of reciprocating engines.

The turbine is not only a powerful engine, but it is also simple. It is difficult to describe, but the machine consists of a series of movable and stationary vanes, inclosed in a case of sylindrical shape. The steam is forced between these vanes, and, like a worm on a screw, they turn with great rapidity. As the central shaft of the turbine is coupled direct to the propellers, the latter make many more revolutions to the minute than does the ordinary screw, hence they are much smaller. A 4,000horsepower turbine will make 350 revolutions to the minute, whereas a reciprocating engine of the same power will make but 120. Being entirely inclosed, a turbine requires but little attention. It does not become clogged or dirty, even though there are so many parts, the number of vanes to a turbine of either a Parsons or Curtis type being about 100,000, each of which performs its own part of the work of driving.

There is no doubt but what the reciprocating engine for high-class passenger and freight steamers and warships has come to its end, and that the power of the future will be the turbine. This engine comes about as close to the theory of the adaptation of steam to mechanics as many scientists ever expect to get, though there will always be men of brains at work, who will seek to not only develop the ideas of Messrs. Parsons and Curtis, but to discover something that will eclipse them as they have eclipsed others.

FINANCIAL and COMMERCIAL

J. S. BACHE & CO'S REVIEW OF THE STOCK MARKETS

Last Week Was One of Sunshine, but There Are Still Causes for Disquiet — Restored Confidencd Needed — Good Sale for Bonds.

NEW YORK, March 15—The week has been one of sunshine in the market, and under the exhibition of rising prices after the long gloom all good news has been welcomed, and everything unfavorable treated as merely passing clouds. While it is well to welcome this exhibition of returning confidence, it is also well to remember that much cloudy weather will have to be encountered before settled prosperity will prevail. When the nominations are settled we shall have Bryan scares, together with crop scares, to depress the slowly gaining business progress. For these reasons the public is not buying securities freely, and professionals alone cannot make a bull market.

The fact that remains, however, is that liquidation has spent its force and that a very large amount of securities have been bought and put into strong boxes, and are thus in the possession of people who actually own them. A number of these people are far-seeing enough to have discounted adverse developments and alarms that will surely come, and are holding their property for a long carry. When the large advance actually comes this fact will have much to do with making the movement a speedily upward one. There is no question that confidence is returning and that business conditions in many directions are becoming better. The surplus of idle freight cars, up to nearly 400,000 at the worst, is now less than perhaps three-quarters of that number. The production of pig iron is increasing and is feeling the effects of slight improvement in consumption. Railroad earnings continue to show large decreases in gross and net, but with many companies it is a remarkable fact that these figures are after all in excess of those of 1905, and the Great Northern's last statement shows, strange to say, a slight increase in net earnings over that of a year ago—though last year's severe winter has something to do with this. The question of wages is still unsettled, but railroads are evidently reducing in some way their operating expenses and will continue to do so. A fluttering indication of the strike era is showing itself, and labor troubles may still have to be reckoned with. The railroads are gradually, however, improving the quality and efficiency of the labor which they employ, and this notwithstanding the prejudice officially engendered by attempts to thwart reductions. We hear rumors of the president's proposition to allow the elevation of freight rates to offset the necessity of wage reductions. This uneconomic handling of business conditions to defeat the laws of supply and demand would be regrettable, placing upon the shipper the burden of supporting the laboring classes with prosperity wages, and making it less possible for the merchants themselves to again obtain prosperity. The money situation appears to be completely settled, the gradual withdrawal of government deposits obviating excessive supply. The prosperous condition of the farmer, continued in spite of the panic, and possibly because of it, in that it has given him higher prices for his produce, is a notable factor of the situation. Farmers in the United States are enjoying an era of high record riches, and this furnishes in itself one of the strong bulwarks on which future prosperity will rest. The larger industrial concerns are most of them feeling the benefits of an increase in business, at least from the lowest panic conditions, but this fact of recovery is perhaps too encouragingly considered because the comparison is with a period of almost complete cessation. Looked at broadly, there is nothing to hinder the steady return of business in great volume except the unfavorable influences exerted by politics. We have before us the presidential campaign, and until, at least, the nominations are made, even Wall street itself cannot discount the outcome; and both those who buy securities to keep for a long time and those who trade for short periods have before them this cloud of uncertainty. The crop prospects are fine, underlying conditions are sound, and as soon as we have passed the season of nominations, and if then the outcome of the election can be fairly predicated, and is favorable, all other conditions will trend towards prosperity. In the meantime hope and fear will alternate. Money is evidently piling up in the hands of the people, and when the era of confidence comes will flow into securities at a rapid rate.

A rumor which seems to have some authority states that an important announcement will be made from Washington (said to be the result of a conference with leading interests), and will have a beneficial effect upon industrial and railroad conditions. Inasmuch as restored confidence is the main thing needed now, it is to be hoped that the rumor is true.

BONDS.

An encouraging development in the situation in general, and in the bond market in particular, this week was the sale of $5,000,000 New York State 4's at Albany on Wednesday. The successful bids ranged from about 106 to about 108 or an average yield on the investment of approximately 3.70 per cent. It is of course natural to assume that with a net bonded indebtedness of only $11,630,000, which, through the operation of the sinking fnnds, will be reduced to about $6,000,000 before the end of the year, the Empire State can command the very highest price for its evidences of debt, and it is rarely that the opportunity is offered to buy such bonds bearing interest at as high a rate as four per cent. Nevertheless, conditions existed a few months ago which would have seriously handicapped the sale of even such bonds, and heretofore interest in the sale of New York state bonds has been rather limited. The inference is that conditions in the bond market are rapidly becoming normal, and as the best grades of bonds have already recovered a very large percentage of their maximum loss the investor may now seek employment for his funds in the purchase of bonds which, though not such as are usually termed gilt-edged, are still sufficiently sure to be safe excepting under conditions scarcely imaginable. It has been our observation that after a severe depression bonds recover in series according to their desirability and security.

J. S. BACHE & CO.

THE CAR WORKS PLAN

A joint committee of the common council and the board of trade met Monday afternoon in city hall to discuss the proposition of R. D. Isaacs to establish a car works in St. John. Those present were Ald. Sprague (chairman). Ald. Kelley, Christie, McGowan, Holder, Vanwart, W. S. Fisher, H. B. Schofield and J. A. Likely. Owing to a previous engagement, Mr. Isaacs was unable to attend.

It is understood that after considering the offer put forward by Mr. Isaacs, details of which have already been published, the committee were in favor of granting a free site and tax exemption, not, however, including water rates. The chairman, Ald. McGowan and Mr. Likely were appointed a committee to confer with Mr. Isaacs on the question of securing a suitable site.

Oh joy, oh bliss for the lover!
Oh life that goes like a song!
Courting a girl in Lapland
Where the nights are six months long.

THE WORLD OF SHIPPING

MINIATURE ALMANAC.

1908.

March	Rises	Sets	High	Low.
16 Mon	6.39	6.26	10.56	5.04
17 Tues	6.37	6.28	11.31	5.44
18 Wed	6.35	6.29	12.00	6.15
19 Thurs	6.34	6.30	0.25	6.50
20 Fri	6.32	6.31	0.58	7.26
21 Sat	6.30	6.33	1.34	8.05

Sun Tides

The time used is Atlantic Standard.

VESSELS BOUND TO ST. JOHN.

Steamers.

Bengore Head, sld Androssan, March 5.
Carthaginian, sld Glasgow, Feb 19.
Empress Britain, sld Liverpool March 6.
Lake Erie, sld Liverpool March 11.
Montcalm, sld, Bristol, March 1.
Montrose, sld Antwerp, March 9.
Montreal, sld London, March 14.
Monmouth, sld Avonmouth, March 14.
Memon, sld, Barry, Mar 4.
Salacia, sld Glasgow, March 7.
Sardinian, sld London, Mar 5.
Tunisian, sld Liverpool, Mar 5.
Victorian, sld Liverpool March 13.

PORT OF ST. JOHN.

DOMINION PORTS.

Liverpool, March 14—Cld, schrs Harry B. Buchanan, Halifax; Albertha, Evans, Boston.

Louisburg, March 14—Ar, 10th, stmrs Mystic, Cain, from Portland; 11, Cabot, Kemp, from Halifax; 12, Dominion, Dawson, from Portland; coban, McPhail, from St. John's, Nfld; 13th. Louisburg, Marsters, from Halifax.

Cid 11th.—Stmrs Nancy Lee, Murchie, for Manchesterd, Eng (after taking on board bunker coal); 12th. Dominion, Dawson, for Boston; Coban, McPhail, for Yarmouth; 13th. Louisburg, Marsters for Halifax.

CANADIAN PORTS.

Halifax, Mar 16—Ard, schr Edyth, Boston.
Halifax, Mar 16—Sld, stmr Senlac, St. John via ports.
Vancouver, Mar 11—Ard, stmr Moana, Hemming, Sydney, NSW, and Brisbane via Honolulu.
Victoria, Mar 13—Sld, stmr Indravelli, Cullington, Sydney, NSW.
Liverpool, N. S., Mar 11—Ard, schr Rhoda, Day, New York.

BRITISH PORTS.

Nassau, March 9—Ard. Stmr Bornu, (Br) Pierce, Halifax for Havana (and proceeded) 11th. schr Fanie Prescott, Fountain, Norfolk Va.

Fastnet, March 15—Passed stmr Grampian, (Br) Outram, St. John N. B. and Halifax for Liverpool.

Avonmouth, Mar 14—Sld, stmr Monmouth, St. John.

London, Mar 14—Sld, stmr Montreal, Halifax and St. John.

Scilly, Mar 16—Passed, stmr Pomeranian, St John and Halifax for London and Havre.

Liverpool, Mar 16—Ard, stmr Grampian, St John and Halifax.

Jamaica, Mar 10—Sld, stmr Boston (Nor), Hoelstad, Halifax via Turks Island, etc.

St. John's, Nfld., Mar 2—Ard, barks Minnie, Jackman, Barbados; Lake Simcoe, Tizzard, Pernambuco; schrs Canada, Conrad, Barbados; Ethel, Herald, Figueira, had sails blown away and bulwarks injured in heavy weather off the coast.

Sld, Feb 29—Schr Damaraland, Bowers, Pernambuco.

In port Mar. 3, schr Helen Stewart, Miller, for Pernambuco, to sail same day.

FOREIGN PORTS,

New York, March 15—Ard. bark Lyndhurst, Parnell, Baltimore.

Havana, March 13—Ard, schr Delta (Br) Sherman, Pascagoula.

Portland, Me., Mar 16—Ard, stmr Calvin Austin, Boston for St. John.

Cld—Stmr Ring (Nor), Parrsboro (N S).

Sld—Schrs Emily P. Northam, Boston for St John; Samuel Castner, Jr., Calais.

New London, Conn., Mar 16—Sld, Schr Alcaea, from New York, Halifax.

Portsmouth, N. H., Mar 16—Sld, schr R D Spear, (from Port Reading, Rockland); Isaiah K. Stetson, (from Weymouth), St Andrews; Madagascar, (from Plymouth), Calais; Arthur Clifford, (from Boston), Mount Desert.

Salem, Mass., Mar 16—Sld, schrs Norman, New York; Almeda Willey, St. John (N B)

New York, Mar 16—Cld, bark Lovisa, Boston; schr Mary Hendry, Bridgewater (N S)

Vineyard Haven, Mar 16—Passed, schr Melba, Carrabelle, for St. John.

New York, Mar 14—Sld, bark Herbert Fuller, Brumswick, Caut Curacoa, St Thomas.

Anjer, Feb 3—Passed bark Alcides, Cummings, Hong Kong for Baltimore.

Matanzas, Mar 3—Sld, schr Charlevoix, Sommerville, Mobile.

Gloucester, Mass., Mar. 13—Sld, schr Emily F Northam, Boston for St. John (N B.)

DANGERS TO NAVIGATION.

New York, March 15—Stmrs Seminole, from San Domingo City, etc reports March 14, lat. 27.35 lon 73.38 passed a spar projecting about 10 feet above water, apparently attached to a submerged wreck.

NOTICE TO MARINERS.

Steamer Reindeer, from Savannah, reports March 12, lat 39 17. lon 73 36, passed a submerged raft, painted white, apparently a vessel's life raft.

Inagua, Mar 8—The government light showing the anchorage in Matthewtown Roads was, on March 1, changed from red to white.

REPORTS AND DISASTERS.

New York, Mar 16—The crew of the British bark Birnam Wood arrived yesterday on the Yumuri and reported their vessel wrecked on a reef off Santa Cruz, Cuba, Feb 13. She was eventually hauled off, towed to Santa Cruz and condemned.

CHARTERS.

British bark Enterprise, 499 tons, from Mobile to Northside Cuba, lumber, $5.25; schr D Howard Spear, 489 tons, from Philadelphia to Jacksonville, $1.

MARINE NEWS.

C. P. R. steamship Montreal, sailed from London last Saturday for this port.

Steamship Monmouth, , left Avonmouth March 14 for this port.

Four officers arrived by the Tunisian at Halifax to join the H. M. S. Cresso, at Bermuda. They leave on Monday on the Oruro for their destination. They are: Engineer Commander T. R. Reynolds, Engineer Commander H. W. Metcalf, Lieutenant D. deC. A Herbert, Lieutenant G. E. M. Blackmore.

Word has just been received at St. Johns, Nfld, that the missing bark Alkaline, Capt. Jensen, on which are thre St. John's men, left Ivitgut on Oct. 4th. for Copenhagen, but owing to heavy ice harbored at a port south of that thirteen days later. The owners of the Alkaline bellev that Capt. Jensen put back to Ivigut, where there is a good harbor, for the winter, it being impossible to get off the coast.

Captain William J. Farrell, of the Silvia, has been most unfortunate in his commands, this being the third steamer of the Red Cross Line that he has lost. He has always been looked on as a most capable and careful navigator, and one of the most popular and best known captains coming to Halifax and his numerous friends here were sorry to hear of this his latest misfortune. He was in command of the Miranda when she foundered some years ago while on the way back to New York with an expedition to the far north, and he was then given command of the Portia which ran on a ledge near Sambro while bound from New York to Halifax and became a total wreck. The Silvia has been running in the Red Cross service for the past 14 years and was the favorite boat of the line. She was built in 1885 and was formerly the "Baghdadi." She was an iron ship of 1088 tons net and 1708 tons gross. The steamer Rosalind which has been laid up at New York being overhauled will be placed in commission at once and will leave for Halifax and St. John's about the middle of this week.—Halifax Chronicle.

Shelburne, March 14—The first new vessel to be put afloat this season at Shelburne is the Elfreda May, which was launched from Joseph McGill's lower shipyard, yesterday. This schooner was begun by the late John A. McGowan, and was purchased by Irvine A Lovitt of Yarmouth. Mr. Lovitt had intended her to be the neucleus of a fresh fishing fleet, but her model was found to be unsuitable for that business, so it was decided to sell her, and replace with a thoroughly up-to-date mbodel.

The Elfreda May is 78 ft over all 22 ft. 9 in. wide, 9 ft. 2 in deep and registers 87 tons. She will be commanded by Captain Walter Patten, of Grand Banks, Nfld., who is also her chief owner, and she will sail at once for that port, to fit for Bank salt fishing. The schooner which Mr. McGill is now building for I. A. Lovitt is a fine specimen of a modern design of fresh fishing schooner from lines by McManus, the well known Boston designer, whose vessels rave proven so successful in the Boston and Gloucester fleets. She will be launched the latter part of April, and will be commanded by Captain John Sims.

LIST OF VESSELS IN PORT.

Steamers.

Athenia, 6982, R Reford Co.
Empress of Britain, 8024 C. P. R. Co.,
Borgestad, (Nor.) 2537.
Hird, (Nor.) T. S. simms
Garibaldi, 468, master.
Montcalm, 3568, C P R Co.
Rappahannock, 2,490, Wm. Thomson & Co.

Schooners.

Abbie & Eva Hooper, 275, R C Elkin.
Arthur M Gibson, 296, J W Smith.
C B Wood, 234, Stetson, Cutler & Co.
Cheslie, 350, Geo E Holder.
Henry Miller, 246, A W Adams.
Ida M Barton, 192, J W McAlary.
Jennie A Stubbs, 158, master.
Lavonia, 296, J W Smith.
Myrtle Leaf, 366, master.
Peter C Schultz, 373, Stetson, Cutler & Co.
Preference, 243, G L Purdy.
Ravola, 139, J W Smith.
Romeo, 111, P McIntyre.
W E & W L Tuck, 295, J A Gregory.
Wm L Elkins, 239, J W Smith.

Note—Besides, there are forty-one schooners laid up here for the winter.

BASKET BALL

Intermediate League.

The Algonquins made sure of first place in the Intermediate Basketball League last evening by defeating the Portlands in a rough and exciting game by the score of 28 to 15. Carmarthen street team had a tough battle in winning from the Exmouth street aggregation by the score of 12 to 11. G. Emery was referee. The teams were:

Algonquins.	Portlands.
Forwards.	
S. Seely	Leatham
C. Seely	C. Brown
Centre.	
Corbett	W. Brown
Defence.	
S. Holder	McLean
W. Jones	Coates
Carmarthen St.	Exmouth St.
Forwards.	
R. Emery	Hipwell
McAdam	Cosman
Centre.	
Weatherhead	Wright
Defence.	
Carloss	Lawton
Scott	Drake

The league standing is:

	Won.	Lost.	P.C.
Algonquins	6	1	.857
Portlands	4	2	.666
Outcasts	3	3	.500
St. George's	3	3	.500
Carmarthen St.	3	4	.428
Exmouth St.	0	6	.000

Papke Defeats Kelly.

Milwaukee, Wis., March 16—Billy Papke, of Spring Valley (Ill.), tonight got the decision over Hugo Kelly, of Chicago, at the end of a ten round bout at the Hippodrome. The bout went the limit. Papke is now entitled to fight Stanley Ketchell, of Grand Rapids (Mich.), for the middleweight championship. The fight was lively from start to finish. Papke earned his victory principally by knocking Kelly down in the first round for a count of two, and in the fighting thereafter he was the aggressor. Papke's clinches prevented Kelly from fighting in his scientific way. Kelly got in some body punches in the second round and had a slight advantage in that period.

SMALLPOX ON THE NORTH SHORE

Campbellton, N. B., March 16—Smallpox which has been so prevalent during the winter in this county broke out in the Tobique country, five miles back of this town. A few days ago a case was brought to the notice of A. McG. McDonald, chairman of the board of health, who immediately notified Dr. Lunam to look into the matter.

On going into the country Dr. Lunam found eight cases of the disease. These were removed to the quarantine pest house this morning.

John H. Graham

Blissville, March 16—The funeral of John H. Graham, of Juvenile Settlement, who died very suddenly of heart failure on Friday last, was held yesterday under the auspices of the I. O. F., and was largely attended. Mr. Graham was in excellent health up till the day of his death. About a week ago he was called upon to mourn the death of his mother, who was called away at the age of eighty-two. On Friday last Mr. Graham was engaged in hauling hay from a stack some distance from home. He was on the load and complained of feeling unwell and stopped work for a few moments. He resumed work, but had only placed two or three forkfuls when he slipped from the load and he was picked up dead.

Mr. Graham was a member of Court Sunbury, No. 1289, I. O. F., and the members of the court attended in a body. The funeral was held in the Methodist church, of which deceased was a prominent member, and the services were conducted by Rev. T. Spencer Crisp, who preached an eloquent sermon from the words, "Be of good cheer. Be not afraid." The pallbearers were brother Foresters—Milton A. Smith, Grover Patchell, H. D. Merserean and Robert Patchell. H. H. Smith acted as director.

A few years ago Mr. Graham's younger brother, S. Teed Graham, was also buried with Forestric honors, and the two brothers are the only members of Court Sunbury removed by death since its founding in 1893.

THE SOVEREIGN BANK

Toronto, March 16—Shareholders of the Sovereign Bank, at a meeting here today, ratified the deed of indenture by which the entire assets and business of the bank were transferred to thirteen chartered banks of Canada, headed by the Bank of Montreal and Canadian Bank of Commerce.

A resolution was adopted appointing a committee of shareholders composed of William Wallace, Toronto; A. T. MacLaren, Stratford, and Senator Baird, of Perth (N. B.), who should confer with the present management and trustees of the bank and report back to the shareholders at the annual meeting in June.

A resolution asking for a government investigation was moved and seconded, but was not put to the meeting.

Clouds, rent with vivid flashes of lightning, while rain, hail and snow fell alternately, was the phenomenon served up to Spencer people by the weather man the other night. During the display of pyrotechnics the mercury fell 12 degrees.