BISHOP NATHANIEL HOLMES

VOYAGE OF THE PAPER CANOE

Nathaniel Bishop
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Содержание

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INTRODUCTION

The author left Quebec, Dominion of Canada, July 4, 1874, with a single assistant, in a wooden canoe eighteen feet in length, bound for the Gulf of Mexico. It was his intention to follow the natural and artificial connecting watercourses of the continent in the most direct line southward to the gulf coast of Florida, making portages as seldom as possible, to show how few were the interruptions to a continuous water-way for vessels of light draught, from the chilly, foggy, and rocky regions of the Gulf of St. Lawrence in the north, to the semi-tropical waters of the great Southern Sea, the waves of which beat upon the sandy shores of the southernmost United States. Having proceeded about four

hundred miles upon his voyage, the author reached Troy, on the Hudson River, New York state, where for several years E. Waters & Sons had been perfecting the construction of paper boats.

The advantages in using a boat of only fifty-eight pounds weight, the strength and durability of which had been well and satisfactorily tested, could not be questioned, and the author dismissed his assistant, and "paddled his own canoe" about two thousand miles to the end of the journey. Though frequently lost in the labyrinth of creeks and marshes which skirt the southern coast of his country, the author's difficulties were greatly lessened by the use of the valuable and elaborate charts of the United States Coast Survey Bureau, to the faithful executers of which he desires to give unqualified and grateful praise.

To an unknown wanderer among the creeks, rivers, and sounds of the coast, the courteous treatment of the Southern people was most gratifying. The author can only add to this expression an extract from his reply to the address of the Mayor of St. Mary's, Georgia, which city honored him with an ovation and presentation of flags after the completion of his voyage:

> "Since my little paper canoe entered southern waters upon her geographical errand, – from the capes of the Delaware to your beautiful St. Mary's, – I have been deeply sensible of the value of Southern hospitality. The oystermen and fishermen living along the lonely beaches of the eastern shore of Maryland and Virginia; the surfmen and light-house keepers of Albemarle, Pamplico, and Core sounds, in North Carolina; the ground-nut planters who inhabit the

uplands that skirt the network of creeks, marshes, ponds, and sounds from Bogue Inlet to Cape Fear; the piny-woods people, lumbermen, and turpentine distillers on the little bluffs that jut into the fastnesses of the great swamps of the crooked Waccamaw River; the representatives of the once powerful rice-planting aristocracy of the Santee and Peedee rivers; the colored men of the beautiful sea-islands along the coast of Georgia; the Floridians living between the St. Mary's River and the Suwanee – the wild river of song; the islanders on the Gulf of Mexico where I terminated my long journey; – all have contributed to make the 'Voyage of the Paper Canoe' a success."

After returning from this paper-canoe voyage, the author embarked alone, December 2, 1875, in a cedar duck-boat twelve feet in length, from the head of the Ohio River, at Pittsburgh, Pennsylvania, and followed the Ohio and Mississippi rivers over two thousand miles to New Orleans, where he made a portage through that city eastwardly to Lake Pontchartrain, and rowed along the shores of the Gulf of Mexico six or seven hundred miles, to Cedar Keys, Florida, the terminus of his paper-canoe voyage.

While on these two voyages, the author rowed over five thousand miles, meeting with but one accident, the overturning of his canoe in Delaware Bay. He returned to his home with his boats in good condition, and his note-books, charts, &c., in an excellent state of preservation.

At the request of the "Board on behalf of the United

States Executive Department" of the Centennial Exhibition at Philadelphia, the paper canoe "Maria Theresa," and the cedar duck-boat "Centennial Republic," were deposited in the Smithsonian Department of the United States Government building, during the summer and fall of 1876.

The maps, which show the route followed by the paper canoe, have been drawn and engraved by contract at the United States Coast Survey Bureau, and are on a scale of 1/1.500,000. As the work is based on the results of actual surveys, these maps may be considered, for their size, the most complete of the United States coast ever presented to the public.

Much credit is due to Messrs. Waud and Merrill for the artistic results of their pencils, and to Messrs. John Andrew & Son for their skill in engraving the illustrations.

To the readers of the author's first book of travels, "The Pampas and Andes: a Thousand Miles' Walk across South America," which journey was undertaken when he was but seventeen years of age, the writer would say that their many kind and appreciative letters have prompted him to send forth this second book of travels – the "Voyage of the Paper Canoe."

Lake George, Warren County, N. Y.,
January 1, 1878.

CHAPTER I
THE APPROACHES TO THE WATER-WAY OF THE CONTINENT

ISLAND OF ST. PAUL. – THE PORTALS OF THE GULF OF ST. LAWRENCE. – THE EXTINCT AUK. – ANTICOSTI ISLAND. – ICEBERGS. – SAILORS' SUPERSTITIONS. – THE ESTUARY OF THE ST. LAWRENCE. – TADOUSAC. – THE SAGUENAY RIVER. – WHITE WHALES. – QUEBEC.

WHILE on his passage to the ports of the St. Lawrence River, the mariner first sights the little island of St. Paul, situated in the waste of waters between Cape Ray, the southwestern point of Newfoundland on the north, and Cape North, the northeastern projection of Cape Breton Island on the south. Across this entrance to the Gulf of St. Lawrence from cape to cape is a distance of fifty-four nautical miles; and about twelve miles east-northeast from Cape North the island of St. Paul, with its three hills and two light-towers, rises from the sea with deep waters on every side.

This wide inlet into the gulf may be called the middle portal, for at the northern end of Newfoundland, between the great island and the coast of Labrador, another entrance exists, which is known as the Straits of Belle Isle, and is sometimes called "the

shorter passage from England." Still to the south of the middle entrance is another and a very narrow one, known as the Gut of Canso, which separates the island of Cape Breton from Nova Scotia. Through this contracted thoroughfare the tides run with great force.

One hundred years ago, as the seaman approached the dangerous entrance of St. Paul, now brightened at night by its light-towers, his heart was cheered by the sight of immense flocks of a peculiar sea-fowl, now extinct. When he saw upon the water the Great Auk (*Alca impennis*), which he ignorantly called "a pengwin," he knew that land was near at hand, for while he met other species far out upon the broad Atlantic, the Great Auk, his "pengwin," kept near the coast. Not only was this now extinct bird his indicator of proximity to the land, but so strange were its habits, and so innocent was its nature, that it permitted itself to be captured by boat-loads; and thus were the ships re-victualled at little cost or trouble. Without any market-value a century ago, the Great Auk now, as a stuffed skin, represents a value of fifteen hundred dollars in gold. There are but seventy-two specimens of this bird in the museums of Europe and America, besides a few skeletons, and sixty-five of its eggs. It was called in ancient days Gare-fowl, and was the *Geirfugl* of the Icelander.

Captain Whitbourne, who wrote in the reign of James the First, quaintly said: "These Pengwins are as bigge as Geese, and flye not, for they have but a little short wing, and they multiply so infinitely upon a certain flat island that men drive them from

thence upon a board into their boats by hundreds at a time, as if God had made the innocency of so poor a creature to become such an admerable instrument for the sustenation of man."

In a copy of the English Pilot, "fourth book," published in 1761, which I presented to the library of the United States Coast Survey, is found this early description of this now extinct American bird: "They never go beyond the bank [Newfoundland] as others do, for they are always on it, or in it, several of them together, sometimes more but never less than two together. They are large fowls, about the size of a goose, a coal-black head and back, with a white belly and a milk-white spot under one of their eyes, which nature has ordered to be under their right eye."

Thus has the greed of the sailor and pot-hunter swept from the face of the earth an old pilot – a trusty aid to navigation. Now the light-house, the fog-gun, and the improved chart have taken the place of the extinct auk as aids to navigation, and the sailor of to-day sees the bright flashes of St. Paul's lights when nearly twenty miles at sea. Having passed the little isle, the ship enters the great Gulf of St. Lawrence, and passes the Magdalen Islands, shaping its course as wind and weather permit towards the dreaded, rocky coast of Anticosti. From the entrance of the gulf to the island of Anticosti the course to be followed is northwesterly about one hundred and thirty-five nautical miles. The island which divides an upper arm of the gulf into two wide channels is one hundred and twenty-three miles long, and from ten to thirty miles wide. Across the entrance of this great arm,

or estuary, from the high cape of Gaspé on the southern shore of the mainland to Anticosti in the narrowest place, is a distance of about forty miles, and is called the South Channel. From the north side of the island and near its west end to the coast of Labrador the North Channel is fifteen miles wide. The passage from St. Paul to Anticosti is at times dangerous. Here is an area of strong currents, tempestuous winds, and dense fogs. When the wind is fair for an upward run, it is *the* wind which usually brings misty weather. Then, from the icy regions of the Arctic circle, from the Land of Desolation, come floating through the Straits of Belle Isle the dangerous bergs and ice-fields. Early in the spring these ice rafts are covered with colonies of seals which resort to them for the purpose of giving birth to their young. On these icy cradles, rocked by the restless waves, tens of thousands of young seals are nursed for a few days; then, answering the loud calls of their mothers, they accompany them into the briny deep, there to follow the promptings of their instincts. The loud roarings of the old seals on these ice rafts can be heard in a quiet night for several miles, and strike terror into the heart of the superstitious sailor who is ignorant of the origin of the tumult.

Frequently dense fogs cover the water, and while slowly moving along, guided only by the needle, a warning sound alarms the watchful master. Through the heavy mists comes the roar of breaking waters. He listens. The dull, swashy noise of waves meeting with resistance is now plainly heard. The atmosphere becomes suddenly chilled: it is the breath of the iceberg!

Then the shrill cry of "All hands on deck!" startles the watch below from the bunks. Anxiously now does the whole ship's company lean upon the weather-rail and peer out into the thick air with an earnestness born of terror. "Surely," says the master to his mate, "I am past the Magdalens, and still far from Anticosti, yet we have breakers; which way can we turn?" The riddle solves itself, for out of the gloom come whitened walls, beautiful but terrible to behold.

Those terror-stricken sailors watch the slowly moving berg as it drifts past their vessel, fearing that their own ship will be drawn towards it from the peculiar power of attraction they believe the iceberg to possess. And as they watch, against the icy base of the mountain in the sea the waves beat and break as if expending their forces upon a rocky shore. Down the furrowed sides of the disintegrating berg streamlets trickle, and miniature cascades leap, mingling their waters with the briny sea. The intruder slowly drifts out of sight, disappearing in the gloom, while the sailor thanks his lucky stars that he has rid himself of another danger. The ill-omened Anticosti, the graveyard of many seamen, is yet to be passed. The ship skirts along its southern shore, a coast destitute of bays or harbors of any kind, rock-bound and inhospitable.

Wrecks of vessels strew the rocky shores, and four light-houses warn the mariner of danger. Once past the island the ship is well within the estuary of the gulf into which the St. Lawrence River flows, contributing the waters of the great lakes

of the continent to the sea. As the north coast is approached the superstitious sailor is again alarmed if, perchance, the compass-needle shows sympathy with some disturbing element, the cause of which he believes to exist in the mountains which rise along the shore. He repeats the stories of ancient skippers, of vessels having been lured out of their course by the deviation of the guiding-needle, which succumbed to the potent influence exerted in those hills of iron ore; heeding not the fact that the disturbing agent is the iron on board of his own ship, and not the magnetic oxide of the distant mines.

The ship being now within the estuary of the St. Lawrence River, must encounter many risks before she reaches the true mouth of the river, at the Bic Islands.

The shores along this arm of the gulf are wild and sombre. Rocky precipices frown upon the swift tidal current that rushes past their bases. A few small settlements of fishermen and pilots, like Metis, Father Point, and Rimousky, are discovered at long intervals along the coast.

In these St. Lawrence hamlets, and throughout Lower Canada, a patois is spoken which is unintelligible to the Londoner or Parisian; and these villagers, the descendants of the French colonists, may be said to be a people destitute of a written language, and strangers to a literature.

While holding a commission from Francis the First, king of France, Jacques Cartier discovered the Gulf of St. Lawrence, during his first voyage of exploration in the new world. He

entered the gulf on St. Lawrence's day, in the spring of 1534, and named it in honor of the event. Cartier explored no farther to the west than about the mouth of the estuary which is divided by the island of Anticosti. It was during his second voyage, in the following year, that he discovered and explored the great river. Of the desolate shores of Labrador, on the north coast, he said, "It might as well as not be taken for the country assigned by God to Cain."

The distance from Quebec to Cape Gaspé, measured upon a course which a steamer would be compelled to take, is four hundred and seven statute miles. The ship first enters the current of the river St. Lawrence at the two Bic Islands, where it has a width of about twenty miles. By consulting most maps the reader will find that geographers carry the *river* nearly two hundred miles beyond its usual current. In fact, they appropriate the whole estuary, which, in places, is nearly one hundred miles in width, and call it a river – a river which lacks the characteristics of a river, the currents of which vary with the winds and tidal influences, and the waters of which are as salt as those of the briny deep.

Here, in the mouth of the river, at the Bics, secure anchorage for vessels may be found; but below, in the estuary, for a distance of more than two hundred and forty-five miles, to Gaspé, there is but one port of refuge, that of Seven Islands, on the north coast.

As the ship ascends the river from Bic Islands, a passage of about one hundred and sixty statute miles to Quebec, she

struggles against a strong current. Picturesque islands and little villages, such as St. André, St. Anne, St. Rogue, St. Jean, and St. Thomas, relieve the monotony. But very different is the winter aspect of this river, when closed to navigation by ice from November until spring. Of the many tributaries which give strength to the current of the St. Lawrence and contribute to its glory, the Saguenay River with its remarkable scenery is counted one of the wonders of our continent. It joins the great river from the north shore, about one hundred and thirty-four statute miles below Quebec. Upon the left bank, at its mouth, nestles the little village of Tadousac, the summer retreat of the governor-general of the Dominion of Canada.

American history claims for the Roman Catholic church of this settlement an age second only to that of the old Spanish cathedral at St. Augustine, Florida. For three hundred years the storms of winter have beaten upon its walls, but it stands a silent yet eloquent monument of the pious zeal of the ancient Fathers, who came to conquer Satan in the wilderness of a new world. The Saguenay has become the "Mecca" of northern tourists, ever attracting them with its wild and fascinating scenery. Capes Eternity and Trinity guard the entrance to Eternity Bay. The first towers sublimely to a height of eighteen hundred feet, the other is only a little lower. A visit to this mysterious river, with its deep, dark waters and picturesque views, will repay the traveller for the discomforts of a long and expensive journey.

Where the turbulent current of the Saguenay mingles angrily

with that of the St. Lawrence, there may be seen disporting in the waves the white whale of aquariums, which is not a whale at all, but a true porpoise (*Delphinopterus catodon*, as he is now called by naturalists), having teeth in the jaws, and being destitute of the fringed bone of the whalebone whales. This interesting creature is very abundant in the Arctic Ocean on both the Atlantic and Pacific sides, and has its southern limits in the Gulf of St. Lawrence, although one is occasionally seen in the Bay of Fundy, and it is reported to have been observed about Cape Cod, on the Massachusetts coast.

As the ship nears the first great port of the St. Lawrence River, the large and well cultivated island of Orleans is passed, and the bold fortifications of Quebec, high up on the face of Point Diamond, and flanked by the houses of the French city, break upon the vision of the mariner. To the right, and below the city, which Champlain founded, and in which his unknown ashes repose, are the beautiful Falls of Montmorency, gleaming in all the whiteness of their falling waters and mists, like the bridal veil of a giantess. The vessel has safely made her passage, and now comes to anchor in the Basin of Quebec. The sails are furled, and the heart of the sailor is merry, for the many dangers which beset the ship while approaching and entering the great water-way of the continent are now over.

CHAPTER II
FROM QUEBEC TO SOREL

THE WATER-WAY INTO THE CONTINENT. – THE WESTERN AND THE SOUTHERN ROUTE TO THE GULF OF MEXICO. – THE MAYETA. – COMMENCEMENT OF THE VOYAGE. – ASCENT OF THE RIVER ST. LAWRENCE. – LAKE OF ST. PETER. – ACADIAN TOWN OF SOREL.

THE canoe traveller can ascend the St. Lawrence River to Lake Ontario, avoiding the rapids and shoals by making use of seven canals of a total length of forty-seven miles. He may then skirt the shores of Lake Ontario, and enter Lake Erie by the canal which passes around the celebrated Falls of Niagara. From the last great inland sea he can visit lakes Huron, Michigan, and, with the assistance of a short canal, the grandest of all, Superior. When he has reached the town of Duluth, at the southwestern end of Superior, which is the terminus of the Northern Pacific Railroad, our traveller will have paddled (following the contours of the land) over two thousand miles from salt water into the American continent without having been compelled to make a portage with his little craft. Let him now make his first portage westward, over the railroad one hundred and fifteen miles from Duluth, to the crossing of the Mississippi River at Brainerd, and

launch his boat on the Father of Waters, which he may descend with but few interruptions to below the Falls of St. Anthony, at Minneapolis; or, if he will take his boat by rail from Duluth, one hundred and fifty-five miles, to St. Paul, he can launch his canoe, and follow the steamboat to the Gulf of Mexico. This is the longest, and may be called the canoeist's western route to the great Southern Sea. In St. Louis County, Minnesota, the water from "Seven Beaver Lakes" flows south-southwest, and joins the Flood-Wood River; there taking an easterly course towards Duluth, it empties into Lake Superior. This is the St. Louis River, the first tributary of the mighty St. Lawrence system. From the head waters of the St. Louis to the mouth of the St. Lawrence at Bic Islands, where it enters the great estuary, the length of this great water system, including the great Lakes, is about two thousand miles. The area thus drained by the St. Lawrence River is nearly six millions of square miles. The largest craft can ascend it to Quebec, and smaller ones to Montreal; above which city, navigation being impeded by rapids, the seven canals before mentioned have been constructed that vessels may avoid this danger while voyaging to Lake Ontario.

The southern and shorter coast route to the gulf leaves the great river at the Acadian town of Sorel, where the quiet Richelieu flows into the St. Lawrence River. Of the two long routes offered me I selected the southern, leaving the other to be traversed at some future time. To follow the contours of rivers, bays, and sounds, a voyage of at least twenty-five hundred miles

was before me. It was my intention to explore the connecting watercourses southward, without making a single portage, as far as Cape Henlopen, a sandy headland at the entrance of Delaware Bay; there, by making short portages from one watercourse to another, to navigate along the interior of the Atlantic coast to the St. Mary's River, which is a dividing line between Georgia and Florida. From the Atlantic coast of southern Georgia, I proposed to cross the peninsula of Florida by way of the St. Mary's River, to Okefenokee Swamp; thence, by portage, to the Suwanee River, and by descending that stream (the boundary line of a geographical division – eastern and middle Florida), to reach the coast of the Gulf of Mexico, which was to be the terminal point of my canoe journey. Charts, maps, and sea-faring men had informed me that about twenty-three hundred miles of the trip could be made upon land-locked waters, but about two hundred miles of voyaging must be done upon the open Atlantic Ocean.

As I now write, I smilingly remember how erroneous were my advisers; for, while prosecuting my voyage, I was but once upon the open sea, and then through mistake and for only a few minutes. Had I then known that I could have followed the whole route in a small boat upon strictly interior waters, I should have paddled from the Basin of Quebec in the light paper canoe which I afterwards adopted at Troy, and which carried me alone in safety two thousand miles to the warm regions of the Gulf of Mexico. The counsels of old seamen had influenced me to adopt a large wooden clinker-built, decked canoe, eighteen feet long,

forty-five inches beam, and twenty-four inches depth of hold, which weighed, with oars, rudder, mast and sail, above three hundred pounds. The Mayeta was built by an excellent workman, Mr. J. S. Lamson, at Bordentown, New Jersey. The boat was sharp at each end, and the lines from amidships to stem, and from amidships to sternpost, were alike. She possessed that essential characteristic of seaworthiness, abundant sheer. The deck was pierced for a cockpit in the centre, which was six feet long and surrounded by a high combing to keep out water. The builder had done his best to make the Mayeta serve for rowing and sailing – a most difficult combination, and one not usually successful.

On the morning of July 4, 1874, I entered the Basin of Quebec with my wooden canoe and my waterman, one David Bodfish, a "shoreman" of New Jersey. After weeks of preparation and weary travel by rail and by water, we had steamed up the Gulf and the River of St. Lawrence to this our most northern point of departure. We viewed the frowning heights upon which was perched the city of Quebec with unalloyed pleasure, and eagerly scrambled up the high banks to see the interesting old city. The tide, which rises at the city piers eighteen feet in the spring, during the neaps reaches only thirteen feet. Late in the afternoon the incoming tide promised to assist us in ascending the river, the downward current of which runs with torrent-like velocity, and with a depth abreast the city of from sixteen to twenty fathoms. Against this current powerful steamers run one hundred and eighty miles up the river to Montreal in eighteen hours,

and descend in fourteen hours, including two hours' stoppages at Sorel and Three Rivers. At six o'clock p. m. we pushed off into the river, which is about two-thirds of a mile wide at this point, and commenced our voyage; but fierce gusts of wind arose and drove us to the shelter of Mr. Hamilton's lumber-yard on the opposite shore, where we passed the night, sleeping comfortably upon cushions which we spread on the narrow floor of the boat. Sunday was to be spent in camp; but when dawn appeared we were not allowed to build a fire on the lumber pier, and were forced to ascend the St. Lawrence in quest of a retired spot above the landing of St. Croix, on the right bank of the river. The tide had been a high one when we beached our boat at the foot of a bluff. Two hours later the receding tide left us a quarter of a mile from the current. The river was fully two miles wide at this point, and so powerful was its current that steamers anchored in it were obliged to keep their wheels slowly revolving to ease the strain on their anchors. Early on Monday morning we beheld with consternation that the tide did not reach our boat, and by dint of hard labor we constructed a railroad from a neighboring fence, and moved the Mayeta on rollers upon it over the mud and the projecting reef of rocks some five hundred feet to the water, then embarking, rowed close along the shore to avoid the current. A deep fog settled down upon us, and we were driven to camp again on the left bank, where a cataract tumbled over the rocks fifty or more feet. Tuesday was a sunny day, but the usual head wind greeted us. The water would rise along-shore on the flood three

hours before the downward current was checked in the channel of the river. We could not place any dependence in the regularity of the tides, as strong winds and freshets in the tributaries influence them. Earlier in the season, as a writer remarks, "until the upland waters have all run down, and the great rivers have discharged the freshets caused by thawing of the snows in the spring of the year, this current, in spite of tides, will always run down." To the uninitiated the spectacle is a curious one, of the flood tide rising and swelling the waters of a great river some eight to ten feet, while the current at the surface is rapidly descending the course of the stream.

Finding that the wind usually rose and fell with the sun, we now made it a rule to anchor our boat during most of the day and pull against the current at night. The moon and the bright auroral lights made this task an agreeable one. Then, too, we had Coggia's comet speeding through the northern heavens, awakening many an odd conjecture in the mind of my old salt.

In this high latitude day dawned before three o'clock, and the twilight lingered so long that we could read the fine print of a newspaper without effort at a quarter to nine o'clock p. m. The lofty shores that surrounded us at Quebec gradually decreased in elevation, and the tides affected the river less and less as we approached Three Rivers, where they seemed to cease altogether. We reached the great lumber station of Three Rivers, which is located on the left bank of the St. Lawrence, on Friday evening, and moved our canoe into quiet waters near the entrance

of Lake of St. Peter. Rain squalls kept us close under our hatch-cloth till eleven o'clock a. m. on Saturday, when, the wind being fair, we determined to make an attempt to reach Sorel, which would afford us a pleasant camping-ground for Sunday.

Lake of St. Peter is a shoal sheet of water twenty-two miles long and nearly eight miles wide, a bad place to cross in a small boat in windy weather. We set our sail and sped merrily on, but the tempest pressed us sorely, compelling us to take in our sail and scud under bare poles until one o'clock, when we double-reefed and set the sail. We now flew over the short and swashy seas as blast after blast struck our little craft. At three o'clock the wind slackened, permitting us to shake out our reefs and crowd on all sail. A labyrinth of islands closed the lake at its western end, and we looked with anxiety to find among them an opening through which we might pass into the river St. Lawrence again. At five o'clock the wind veered to the north, with squalls increasing in intensity. We steered for a low, grassy island, which seemed to separate us from the river. The wind was not free enough to permit us to weather it, so we decided to beach the boat and escape the furious tempest. But when we struck the marshy island we kept moving on through the rushes that covered it, and fairly sailed over its submerged soil into the broad water on the other side. Bodfish earnestly advised the propriety of anchoring here for the night, saying, "It is too rough to go on;" but the temptation held out by the proximity to Sorel determined me to take the risk and drive on. Again we bounded out upon rough

water, with the screeching tempest upon us. David took the tiller, while I sat upon the weather-rail to steady the boat. The Mayeta was now to be put to a severe test; she was to cross seas that could easily trip a boat of her size; but the wooden canoe was worthy of her builder, and flew like an affrighted bird over the foaming waves across the broad water, to the shelter of a wooded, half submerged island, out of which rose, on piles, a little light-house. Under this lee we crept along in safety. The sail was furled, never to be used in storm again. The wind went down with the sinking sun, and a delightful calm favored us for our row up the narrowing river, eight miles to the place of destination.

Soon after nine o'clock we came upon the Acadian town, Sorel, with its bright lights cheerily flashing out upon us as we rowed past its river front. The prow of our canoe was now pointed southward toward the goal of our ambition, the great Mexican Gulf; and we were about to ascend that historic stream, the lovely Richelieu, upon whose gentle current, two hundred and sixty-six years before, Champlain had ascended to the noble lake which bears his name, and up which the missionary Jogues had been carried an unwilling captive to bondage and to torture.

We ascended the Richelieu, threading our way among steam-tugs, canal-boats, and rafts, to a fringe of rushes growing out of a shallow flat on the left bank of the river, just above the town. There, firmly staking the Mayeta upon her soft bed of mud, secure from danger, we enjoyed a peaceful rest through the calm night which followed; and thus ended the rough passage of one

week's duration – from Quebec to Sorel.

CHAPTER III
FROM THE ST. LAWRENCE RIVER TO TICONDEROGA, LAKE CHAMPLAIN

THE RICHELIEU RIVER. – ACADIAN SCENES. – ST. OURS. – ST. ANTOINE. – ST. MARKS. – BELŒIL. – CHAMBLY CANAL. – ST. JOHNS. – LAKE CHAMPLAIN. – THE GREAT SHIP-CANAL. – DAVID BODFISH'S CAMP. – THE ADIRONDACK SURVEY. – A CANVAS BOAT. – DIMENSIONS OF LAKE CHAMPLAIN. – PORT KENT. – AUSABLE CHASM. – ARRIVAL AT TICONDEROGA.

QUEBEC was founded by Champlain, July 3, 1680. During his first warlike expedition into the land of the Iroquois the following year, escorted by Algonquin and Montagnais Indian allies, he ascended a river to which was afterwards given the name of Cardinal Richelieu, prime minister of Louis XIII. of France. This stream, which is about eighty miles long, connects the lake (which Champlain discovered and named after himself) with the St. Lawrence River at a point one hundred and forty miles above Quebec, and forty miles below Montreal. The waters of lakes George and Champlain flow northward, through the

Richelieu River into the St. Lawrence. The former stream flows through a cultivated country, and upon its banks, after leaving Sorel, are situate the little towns of St. Ours, St. Rock, St. Denis, St. Antoine, St. Marks, Belœil, Chambly, and St. Johns. Small steamers, tug-boats, and rafts pass from the St. Lawrence to Lake Champlain (which lies almost wholly within the United States), following the Richelieu to Chambly, where it is necessary, to avoid rapids and shoals, to take the canal that follows the river's bank twelve miles to St. Johns, where the Canadian custom-house is located. Sorel is called William Henry by the Anglo-Saxon Canadians. The paper published in this town of seven thousand inhabitants is *La Gazette de Sorel*. The river which flows past the town is called, without authority, by some geographers, Sorel River, and by others St. Johns, because the town nearest its source is St. Johns, and another town at its mouth is Sorel. There are about one hundred English-speaking families in Sorel. The American Waterhouse Machinery supplies the town with water pumped from the river at a cost of one ton of coal per day. At ten o'clock on Monday morning we resumed our journey up the Richelieu, the current of which was nothing compared with that of the great river we had left. The average width of the stream was about a quarter of a mile, and the grassy shores were made picturesque by groves of trees and quaintly constructed farm-houses.

It was a rich, pastoral land, abounding in fine herds of cattle. The country reminded me of the Acadian region of Grand Pré,

which I had visited during the earlier part of the season. Here, as there, were delightful pastoral scenes and rich verdure; but here we still had the Acadian peasants, while in the land of beautiful Evangeline no longer were they to be found. The New Englander now holds the titles to those deserted old farms of the scattered colonists. Our rowing was frequently interrupted by heavy showers, which drove us under our hatch-cloth for protection. The same large, two-steepled stone churches, with their unpainted tin roofs glistening like silver in the sunlight, marked out here, as on the high banks of the St. Lawrence River, the site of a village.

Twelve miles of rowing brought us to St. Ours, where we rested for the night, after wandering through its shaded and quaint streets. The village boys and girls came down to see us off the next morning, waving their kerchiefs, and shouting "*Bon voyage!*" Two miles above the town we encountered a dam three feet high, which deepened the water on a shoal above it. We passed through a single lock in company with rafts of pine logs which were on the way to New York, to be used for spars. A lockage fee of twenty-five cents for our boat the lock-master told us would be collected at Chambly Basin. It was a pull of nearly six miles to St. Denis, where the same scene of comfort and plenty prevailed. Women were washing clothes in large iron pots at the river's edge, and the hum of the spinning-wheels issued from the doorways of the farm-houses. Beehives in the well-stocked gardens were filled with honey, and the straw-thatched barns

had their doors thrown wide open, as though waiting to receive the harvest. At intervals along the highway, over the grassy hills, tall, white wooden crosses were erected; for this people, like the Acadians of old, are very religious. Down the current floated "pin-flats," a curious scow-like boat, which carries a square sail, and makes good time only when running before the wind. St. Antoine and St. Marks were passed, and the isolated peak of St. Hilaire loomed up grandly twelve hundred feet on the right bank of the Richelieu, opposite the town of Belœil. One mile above Belœil the Grand Trunk Railroad crosses the stream, and here we passed the night. Strong winds and rain squalls interrupted our progress. At Chambly Basin we tarried until the evening of July 16, before entering the canal. Chambly is a watering-place for Montreal people, who come here to enjoy the fishing, which is said to be fair.

We had ascended one water-step at St. Ours. Here we had eight steps to ascend within the distance of one mile. By means of eight locks, each one hundred and ten feet long by twenty-two wide, the Mayeta was lifted seventy-five feet and one inch in height to the upper level of the canal. The lock-masters were courteous, and wished us the usual "*bon voyage!*" This canal was built thirty-four years prior to my visit. By ten o'clock p. m. we had passed the last lock, and went into camp in a depression in the bank of the canal. The journey was resumed at half past three o'clock the following morning, and the row of twelve miles to St. Johns was a delightful one. The last lock (the only one at St.

Johns) was passed, and we had a full clearance at the Dominion custom-house before noon.

We were again on the Richelieu, with about twenty-three miles between us and the boundary line of the United States and Canada, and with very little current to impede us. As dusk approached we passed a dismantled old fort, situated upon an island called Ile aux Noix, and entered a region inhabited by the large bull-frog, where we camped for the night, amid the dolorous voices of these choristers. On Saturday, the 18th, at an early hour, we were pulling for the United States, which was about six miles from our camping-ground. The Richelieu widened, and we entered Lake Champlain, passing Fort Montgomery, which is about one thousand feet south of the boundary line. Champlain has a width of three fourths of a mile at Fort Montgomery, and at Rouse's Point expands to two miles and three quarters. The erection of the fort was commenced soon after 1812, but in 1818 the work was suspended, as some one discovered that the site was in Canada, and the cognomen of Fort Blunder was applied. In the Webster treaty of 1842, England ceded the ground to the United States, and Fort Montgomery was finished at a cost of over half a million of dollars.

At Rouse's Point, which lies on the west shore of Lake Champlain about one and one-half miles south of its confluence with the Richelieu, the Mayeta was inspected by the United States custom-house officer, and nothing contraband being discovered, the little craft was permitted to continue her voyage.

At the northern end of the harbor of Rouse's Point is the terminus of the Ogdensburg and the Champlain and St. Lawrence railroads. The Vermont Central Railroad connects with the above by means of a bridge twenty-two hundred feet in length, which crosses the lake. Before proceeding further it may interest the reader of practical mind to know that a very important movement is on foot to facilitate the navigation of vessels between the great Lakes, St. Lawrence River, and Champlain, by the construction of a ship-canal. The Caughnawaga Ship Canal Company, "incorporated by special act of the Dominion of Parliament of Canada, 12th May, 1870," (capital, three million dollars; shares, one hundred dollars each,) with a board of directors composed of citizens of the United States and Canada, has issued its prospectus, from which I extract the following:

> "The commissioners of public works, in their report of 1859, approved by government, finally settled the question of route, by declaring that, 'after a patient and mature consideration of all the surveys and reports, we are of opinion that the line following the Chambly Canal and then crossing to Lake St. Louis near Caughnawaga, is that which combines and affords in the greatest degree all the advantages contemplated by this improvement, and which has been approved by Messrs. Mills, Swift, and Gamble.'
>
> "The company's Act of Incorporation is in every respect complete and comprehensive in its details. It empowers the company to survey, to take, appropriate, have and hold,

to and for the use of them and their successors, the line and boundaries of a canal between the St. Lawrence and Lake Champlain, to build and erect the same, to select such sites as may be necessary for basins and docks, as may be considered expedient by the directors, and to purchase and dispose of same, with any water-power, as may be deemed best by the directors for the use and profit of the company.

"It also empowers the company to cause their canal to enter into the Chambly Canal, and to widen, deepen, and enlarge the same, not less in size than the present St. Lawrence canals; also the company may take, hold, and use any portion of the Chambly Canal, and the works therewith connected, and all the tolls, receipts, and revenues thereof, upon terms to be settled and agreed upon between the company and the governor in council.

"The cost of the canal, with locks of three hundred feet by forty-five, and with ten feet six inches the mitre-sill, is now estimated at two million five hundred thousand dollars, and the time for its construction may not exceed two years after breaking ground.

"Probably no question is of more vital importance to Canada and the western and eastern United States than the subject of transportation. The increasing commerce of the Great West, the rapidity with which the population has of late flowed into that vast tract of country to the west and northwest of lakes Erie, Michigan, Huron, and Superior, have served to convince all well-informed commercial men that the means of transit between that country and the seaboard are far too limited even for the present necessities

of trade; hence it becomes a question of universal interest how the products of the field, the mine, and the forest can be most cheaply forwarded to the consumer. Near the geographical centre of North America is a vast plateau two thousand feet above the level of the sea, drained by the Mississippi to the south, by the St. Lawrence to the east, and by the Saskatchewan and McKenzie to the north. This vast territory would have been valueless but for the water lines which afford cheap transport between it and the great markets of the world.

"Canada has improved the St. Lawrence by canals round the rapids of the St. Lawrence, and by the Welland Canal, connecting lakes Erie and Ontario, twenty-eight miles in length with a fall of two hundred and sixty feet, capable of passing vessels of four hundred tons. The St. Lawrence, from the east end of Lake Ontario, has a fall of two hundred and twenty feet, overcome by seven short canals of an aggregate length of forty-seven miles, capable of passing vessels of six hundred and fifty tons. The Richelieu River is connected with Lake Champlain by a canal of twelve miles from Chambly. A canal of one mile in length, at the outlet of Lake Superior, connects that lake with Lake Huron, and has two locks, which will pass vessels of two thousand tons. New York has built a canal from Buffalo, on Lake Erie, and from Oswego, on Lake Ontario, to Albany, on the Hudson River, of three hundred and sixty and of two hundred and nine miles, capable of passing boats of two hundred and ten tons; and she has also constructed a canal from the Hudson River into Lake Champlain of sixty-five miles, which can

pass boats of eighty tons.

"Such is the nature of the navigation between tide-water on the Hudson and St. Lawrence and the upper lakes. The magnitude of the commerce of the Northwest has compelled the enlargement of the Erie and Oswego canals from boats of seventy-eight to two hundred and ten tons, while the St. Lawrence and Welland canals have also been enlarged since their first construction. A further enlargement of the Erie and Champlain canals is now strongly urged in consequence of the want of the necessary facilities of transport for the ever increasing western trade. The object of the Caughnawaga Ship-canal is to connect Lake Champlain with the St. Lawrence by the least possible distance, and with the smallest amount of lockage. When built, it will enable the vessel or propeller to sail from the head of lakes Superior or Michigan without breaking bulk, and will enable such vessels to land and receive cargo at Burlington and Whitehall, from whence western freights can be carried to and from Boston, and throughout New England, by railway cheaper than by any other route.

"It will possess the advantage, when the Welland Canal is enlarged and the locks of the St. Lawrence Canal lengthened, of passing vessels of eight hundred and fifty tons' burden, and with that size of vessel (impossible on any other route) of improved model, with facilities for loading and discharging cargoes at both ends of the route, in the length of the voyage without transshipment, in having the least distance between any of the lake ports and a seaport, and in having the shortest length of taxed canal navigation.

> The construction of the Caughnawaga Canal, when carried out, will remedy the difficulties which now exist and stand in the way of an uninterrupted water communication between the western states and the Atlantic seaboard."

From Rouse's Point we proceeded to a picturesque point which jutted into the lake below Chazy Landing, and was sheltered by a grove of trees into which we hauled the Mayeta. Bodfish's woodcraft enabled him to construct a wigwam out of rails and rubber blankets, where we quietly resided until Monday morning. The owner of the point, Mr. Trombly, invited us to dinner on Sunday, and exhibited samples of a ton of maple sugar which he had made from the sap of one thousand trees.

On Monday, July 20th, we rowed southward. Our route now skirted the western shore of Lake Champlain, which is the eastern boundary of the great Adirondack wilderness. Several of the tributaries of the lake take their rise in this region, which is being more and more visited by the hunter, the fisherman, the artist, and the tourist, as its natural attractions are becoming known to the public. The geodetical survey of the northern wilderness of New York state, known as the Adirondack country, under the efficient and energetic labors of Mr. Verplanck Colvin, will cover an area of nearly five thousand square miles. In his report of the great work he eloquently says:

> "The Adirondack wilderness may be considered the wonder and the glory of New York. It is a vast *natural* park, one immense and silent forest, curiously and beautifully

broken by the gleaming waters of a myriad of lakes, between which rugged mountain-ranges rise as a sea of granite billows. At the northeast the mountains culminate within an area of some hundreds of square miles; and here savage, treeless peaks, towering above the timber line, crowd one another, and, standing gloomily shoulder to shoulder, rear their rocky crests amid the frosty clouds. The wild beasts may look forth from the ledges on the mountain-sides over unbroken woodlands stretching beyond the reach of sight – beyond the blue, hazy ridges at the horizon. The voyager by the canoe beholds lakes in which these mountains and wild forests are reflected like inverted reality; now wondrous in their dark grandeur and solemnity, now glorious in resplendent autumn color of pearly beauty. Here – thrilling sound to huntsman – echoes the wild melody of the hound, awakening the solitude with deep-mouthed bay as he pursues the swift career of deer. The quavering note of the loon on the lake, the mournful hoot of the owl at night, with rarer forest voices, have also to the lover of nature their peculiar charm, and form the wild language of this forest.

"It is this region of lakes and mountains – whose mountain core is well shown by the illustration, 'the heart of the Adirondacks' – that our citizens desire to reserve forever as a public forest park, not only as a resort of rest for themselves and for posterity, but for weighty reasons of political economy. For reservoirs of water for the canals and rivers; for the amelioration of spring floods by the preservation of the forests sheltering the deep winter snows;

for the salvation of the timber, – our only cheap source of lumber supply should the Canadian and western markets be ruined by fires, or otherwise lost to us, – its preservation as a state forest is urgently demanded. To the number of those chilly peaks amid which our principal rivers take their rise, I have added by measurement a dozen or more over four thousand feet in height, which were before either nameless, or only vaguely known by the names given them by hunters and trappers.

"It is well to note that the final hypsometrical computations fully affirm my discovery that in Mount Haystack we have another mountain of five thousand feet altitude. It may not be uninteresting also to remark that the difference between the altitudes of Mount Marcy and Mount Washington of the White Mountains of New Hampshire is found to be quite eight hundred feet. Mount Marcy, Mount MacIntyre, and Mount Haystack are to be remembered as the three royal summits of the state.

"The four prominent peaks are —

Mount Marcy	{Mount *Tahawus*— "I cleave the clouds,"}	5,402.65	
Mount Haystack,		5,006.73	
Mount MacIntyre,		5,201.80	
Mount Skylight,		4,977.76	."

If the general reader will pardon a seeming digression to gratify the curiosity of some of my boating friends, I will give from the report of the Adirondack Survey Mr. Colvin's account of his singular boat, – one of the lightest yet constructed, and

weighing only as much as a hunter's double-barrelled gun.

> Mr. Colvin says:
>
> "I also had constructed a canvas boat, of my own invention, for use in the interior of the wilderness on such of the mountain lakes as were inaccessible to boats, and which it would be necessary to map. This boat was peculiar; no more frame being needed than could be readily cut in thirty minutes in the first thicket. It was twelve feet long, with thin sheet brass prows, riveted on, and so fitted as to receive the keelson, prow pieces, and ribs (of boughs), when required; the canoe being made water-proof with pure rubber gum, dissolved in naphtha, rubbed into it."

Page 43 of Mr. Colvin's report informs the reader how well this novel craft served the purpose for which it was built.

> "September 12 was devoted to levelling and topographical work at Ampersand Pond, a solitary lake locked in by mountains, and seldom visited. There was no boat upon its surface, and in order to complete the hydrographical work we had now, of necessity, to try my portable canvas boat, which had hitherto done service as bed or tent. Cutting green rods for ribs, we unrolled the boat and tied them in, lashing poles for gunwales at the sides, and in a short time our canvas canoe, buoyant as a cork, was floating on the water. The guides, who had been unable to believe that the flimsy bag they carried could be used as a boat, were in ecstasies. Rude but efficient paddles were hastily hewn from the nearest tree, and soon we were all gliding in our ten-pound boat over the waves of Ampersand,

which glittered in the morning sunlight. To the guides the boat was something astonishing; they could not refrain from laughter to find that they were really afloat in it, and pointed with surprise at the waves, which could be seen *through* the boat, rippling against its sides. With the aid of the boat, with prismatic compass and sextant, I was able to secure an excellent map of the lake; and we almost succeeded in catching a deer, which was driven into the lake by a strange hound. The dog lost the trail at the water, and desiring to put him on the track, we paddled to him. He scrambled into the boat with an air of satisfaction, as if he had always travelled in just such a thing. Soon we had regained the trail, and making the mountains echo to his voice, he again pursued the deer on into the trackless forest.

"Continuing our work, we passed down into the outlet, where, in trying to effect a landing, we suddenly came face to face with a large panther, which had evidently been watching us. He fled at our approach.

"Our baggage was quickly packed, and the temporary frame of the canoe having been taken out and thrown away, we rolled up our boat and put it in the bottom of a knapsack… The same day by noon we reached Cold Brook again, here navigable. In an hour and a half we had re-framed the canvas, cut out two paddles from a dry cedar-tree, had dinner, loaded the boat, and were off, easily gliding down stream to the Saranac River. Three men, the heaped baggage in the centre, and the solemn hound, who seemed to consider himself part of the company, sitting upright near the prow, forming in all a burden of about one third of a

ton, was a severe test of the green boughs of which we had made the frame.

"Ascending the Saranac River, we struck out into the broad Saranac Lake, some six miles in length, and though the winds and the waves buffeted us, the canvas sides of the boat responding elastically to each beat of the waves, we got safely along till near the Sister Islands, when, the wind blowing very fresh, the white-capped rollers began to pitch into the boat. The exertions of the guides brought us under the lee shore, and at evening we disembarked at Martin's."

Geographies, guide-books, and historical works frequently give the length of Lake Champlain as one hundred and fifty, or at the least one hundred and forty miles. These distances are not correct. The lake proper begins at a point near Ticonderoga and ends not far from the boundary line of the United States and Canada. Champlain is not less than one hundred nor more than one hundred and twelve miles long. The Champlain Canal, which connects the river that flows from Whitehall into the lake with the Hudson River, is sixty-four miles long, ending at the Erie Canal at Junction Lock, near Troy. From Junction Lock to Albany, along the Erie Canal, it is six miles: or seventy miles from Whitehall to Albany by canal route. This distance has frequently been given as fifty-one miles.

From the United States boundary line southward it is a distance of seven miles to Isle la Motte, which island is five and a half miles long by one and three quarters wide, with a light-house upon its northwest point. From the New York shore of Monti

Bay, across the end of Isle la Motte to St. Albans, Vermont, is a distance of thirteen and a half miles. Two miles south of the island, on the west shore, is Point au Roche light; and two miles and three quarters south of it is Rocky Point, the terminus of Long Point. Next comes Treadwell Bay, three miles across; then two miles further on is Cumberland Head and its light-house. West from Cumberland, three miles across a large bay, is Plattsburgh, at the mouth of the Saranac River, a town of five thousand inhabitants. In this vicinity Commodore Macdonough fought the British fleet in 1814. These are historic waters, which have witnessed the scene of many a bloody struggle between French, English, and Indian adversaries. Off Cumberland Head, and dividing the lake, is Grand Isle, twelve miles in length and from three to four in width.

The village of Port Kent is near the mouth of the Ausable River, which flows out of the northern Adirondack country. A few miles from the lake is the natural wonder, the Ausable Chasm, which is nearly two miles in length. The river has worn a channel in the Potsdam sandstone formation to a depth, in places, of two hundred feet. Between high walls of rock the river is compressed in one place to ten feet in breadth, and dashes wildly over falls and rapids on its way to Lake Champlain. It is said to rival the famous Swiss Gorge du Triant.

Schuyler's Island, upon the shore of which we passed Tuesday night, is nearly in the latitude of Burlington, Vermont. The distance from Port Douglass on the west, to Burlington on the

east side of Champlain, over an open expanse of water, is nine miles and three quarters. We breakfasted by starlight, and passed Ligonier's Point early in the day. One mile and a half east of it is the group of little islands called Four Brothers. The lake grew narrower as we rowed southward, until, after passing Port Henry Iron Works, and the high promontory of Crown Point, upon which are the ruins of the French Fort Frederic, built in 1731, it has a width of only two miles.

At eight o'clock p. m. we dropped anchor under the banks of Ticonderoga, not far from the outlet of Lake George. It is four miles by road between the two lakes. The stream which connects them can be ascended from Champlain about two miles to the Iron Works, the remainder of the river being filled with rapids.

A railroad now (1867) connects lakes George and Champlain, over which an easy portage can be made. The ruined walls of Fort Ticonderoga are near the railroad landing. A little south of this the lake grows so narrow as to resemble a river. At its southern end, twenty-four miles from Ticonderoga, is situated the town of Whitehall, where the Champlain and Hudson River Canal forms a junction with Lake Champlain. This long river-like termination of Champlain gave to the Indians the fancy of calling it *Tisinondrosa*– "the tail of the lake;" which in mouths inexperienced with the savage tongue became corrupted into Ticonderoga.

Wednesday broke upon us a glorious day. Proceeding three miles to Patterson's Landing, into the "tail of the lake," I left the

Mayeta to explore on foot the shores of Lake George, promising Bodfish to join him at Whitehall when my work should be finished.

CHAPTER IV
FROM LAKES GEORGE AND CHAMPLAIN TO THE HUDSON RIVER

THE DISCOVERY OF LAKE GEORGE BY FATHER JOGUES. – A PEDESTRIAN JOURNEY. – THE HERMIT OF THE NARROWS. – CONVENT OF ST. MARY'S OF THE LAKE. – THE PAULIST FATHERS. – CANAL-ROUTE FROM LAKE CHAMPLAIN TO ALBANY. – BODFISH RETURNS TO NEW JERSEY. – THE LITTLE FLEET IN ITS HAVEN OF REST.

IN the last chapter I gave, from seemingly good authority, the appellation of the narrow terminal water of the southern end of Lake Champlain, "the tail of the lake." Another authority, in describing Lake George, says: "The Indians named the lake, on account of the purity of its waters, *Horican*, or 'silvery water;' they also called it *Canderi-oit*, or 'the tail of the lake,' on account of its connecting with Lake Champlain." Cooper, in his "Last of the Mohicans," says: "It occurred to me that the French name of the lake was too complicated, the American too commonplace, and the Indian too unpronounceable for either to be used familiarly in a work of fiction." So *he* called it Horican.

History furnishes us with the following facts in regard to the discovery of the lake. While journeying up the St. Lawrence in a fleet of twelve canoes, on a mission to the friendly Huron aborigines, Father Isaac Jogues and his two friends, *donnés* of the mission, René Goupil and Guillaume Couture, with another Frenchman, were captured at the western end of Lake of St. Peter by a band of Iroquois, which was on a marauding expedition from the Mohawk River country, near what is now the city of Troy. In the panic caused by the sudden onslaught of the Iroquois, the unconverted portion of the thirty-six Huron allies of the Frenchmen fled into the woods, while the christianized portion defended the white men for a while. A reinforcement of the enemy soon scattered these also, but not until the Frenchmen and a few of the Hurons were made captive. This was on the 2d of August, 1642.

According to Francis Parkman, the author of "The Jesuits in North America," the savages tortured Jogues and his white companions, stripping off their clothing, tearing out their finger-nails with their teeth, and gnawing their fingers with the fury of beasts. The seventy Iroquois returned southward, following the River Richelieu, Lake Champlain, and Lake George, *en route* for the Mohawk towns. Meeting a war party of two hundred of their own nation on one of the islands of Champlain, the Indians formed two parallel lines between which the captives were forced to run for their lives, while the savages struck at them with thorny sticks and clubs. Father Jogues fell exhausted to the

ground, bathed in his own blood, when fire was applied to his body. At night the young warriors tormented the poor captives by opening their wounds and tearing out their hair and beards. The day following this night of torture the Indians and their mangled captives reached the promontory of Ticonderoga, along the base of which flowed the limpid waters, the outlet of Lake George. Here the party made a portage through the primeval forests, carrying their canoes and cargoes on their backs, when suddenly there broke upon their view the dark blue waters of a beautiful lake, which Mr. Parkman thus eloquently describes:

> "Like a fair naiad of the wilderness it slumbered between the guardian mountains that breathe from crag and forest the stern poetry of war. But all then was solitude; and the clang of trumpets, the roar of cannon, and the deadly crack of the rifle had never as yet awakened their angry echoes. Again the canoes were launched and the wild flotilla glided on its way, now in the shadow of the heights, now on the broad expanse, now among the devious channels of the Narrows, beset with woody islets where the hot air was redolent of the pine, the spruce, and the cedar, – till they neared that tragic shore where, in the following century, New England rustics baffled the soldiers of Dieskau, where Montcalm planted his batteries, where the red cross waved so long amid the smoke, and where, at length, the summer night was hideous with carnage, and an honored name was stained with a memory of blood. The Indians landed at or near the future site of Fort William Henry, left their canoes, and with their prisoners began their march for the nearest Mohawk

town."

Father Jogues lived among his captors until the fall of 1643, when he escaped in a vessel from the Dutch settlement of Rensselaerswyck (Albany), to which place the Iroquois had gone to trade with the inhabitants. He arrived at the Jesuit college of Rennes, France, in a most destitute condition, on the 5th of January, 1644, where he was joyfully received and kindly cared for. When he appeared before Queen Anne of Austria, the woman who wore a diadem thought it a privilege to kiss his mutilated hands. In the Roman Catholic church a deformed or mutilated priest cannot say mass; he must be a perfect man in body and mind before the Lord. Father Jogues wished to return to his old missionary field; so, to restore to him his lost right of saying mass, the Pope granted his prayer by a special dispensation. In the spring of 1643 he returned to the St. Lawrence country to found a new mission, to be called the Mission of Martyrs. His Superior at Montreal ordered him to proceed to the country of the Mohawks, and in company with Sieur Bourdon, a government engineer, and six Indians, he followed the Richelieu and Champlain, which the savages called "the doorway of the country," until the little party stood on the northern end of Lake George, on the evening of Corpus Christi; and with the catholic spirit of the Jesuit missionary he christened it Lac St. Sacrement, and this name it bore for a whole century. On the 18th of October, 1646, the tomahawk of the savage ended the life of Father Jogues, who, after suffering many tortures and

indignities from his Iroquois captors, died in their midst while working for their salvation in his field of Christian labor.

The right of a discoverer to name new lakes and rivers is old and unquestioned. A missionary of the cross penetrated an unexplored wilderness and found this noblest gem of the lower Adirondacks, unknown to civilized man. Impressed with this sublime work of his Creator, the martyred priest christened it St. Sacrement. One hundred years later came troops of soldiers with mouths filled with strange oaths, cursing their enemies. What respect had *they* for the rights of discoverers or martyred missionaries? So General Johnson, "an ambitious Irishman," discarded the Christian name of the lake and replaced it with the English one of George. He did not name it after St. George, the patron saint of England, of whom history asserts that he "was identical with a native of either Cappadocia or Cilicia, who raised himself by flattery of the great from the meanest circumstances to be purveyor of bacon for the army, and who was put to death with two of his ministers by a mob, for peculations, a. d. 361;" but he took that of a sensual king, George of England, in order to advance his own interests with that monarch.

For more than a century Lake George was the highway between Canada and the Hudson River. Its pure waters were so much esteemed as to be taken regularly to Canada to be consecrated and used in the Roman Catholic churches in baptismal and other sacred rites. The lake was frequently occupied by armies, and the forts George and William Henry, at

the southern end, possess most interesting historical associations. The novelist Cooper made Lake George a region of romance. To the young generation of Americans who yearly visit its shores it is an El Dorado, and the very air breathes love as they glide in their light boats over its pellucid waters, adding to the picturesqueness of the scene, and supplying that need ever felt, no matter what the natural beauty, – the presence of man. I believe even the Garden of Eden itself could not have been perfect till among its shady groves fell the shadows of our first parents. The cool retreats, the jutting promontories, the moss-covered rocks against which the waves softly break, – if these had tongues, they would, like Tennyson's Brook, "go on forever," for surely they would never have done telling the tender tales they have heard. Nor would it be possible to find a more fitting spot for the cultivation of love and sentiment than this charming lake affords; for Nature seems to have created Lake George in one of her happiest moments. This lake is about thirty-four miles long, and varies in width from one to four miles. Its greatest depth is about the same as that of Champlain. It possesses (like all the American lakes when used as fashionable watering-places) the usual three hundred and sixty-five islands.

When I left the Mayeta I followed a narrow footpath to a rough mountain road, which in turn led me through the forests towards Lake George. In an isolated dell I found the home of one Levi Smith, who piloted me through the woods to the lake, and ferried me in a skiff across to Hague, when I dined at the hotel,

and resumed my journey along the shores to Sabbath Day Point, where at four o'clock p. m. a steamer on its trip from Ticonderoga to the south end of the lake stopped and took me on board. We steamed southward to where high mountains shut in the lake, and for several miles threaded the "Narrows" with its many pretty islands, upon one of which Mr. J. Henry Hill, the hermit-artist, had erected his modest home, and where he toiled at his studies early and late, summer and winter. Three goats and a squirrel were his only companions in this lonely but romantic spot.

During one cold winter, when the lake was frozen over to a depth of two feet, and the forests were mantled in snow, Mr. Hill's brother, a civil engineer, made a visit to this icy region, and the two brothers surveyed the Narrows, making a correct map of that portion of the lake, with all its islands carefully located. Mr. Hill afterwards made an etching of this map, surrounding it with an artistic border representing objects of interest in the locality.

Late in the afternoon the steamer landed me at Crosbyside, on the east shore, about a mile from the head of the lake, resting beneath the shady groves of which I beheld one of the most charming views of Lake George. Early the following morning I took up my abode with a farmer, one William Lockhart, a genial and eccentric gentleman, and a relation of Sir Walter Scott's son-in-law. Mr. Lockhart's little cottage is half a mile north of Crosbyside, and near the high bluff which Mr. Charles O'Conor, the distinguished lawyer of New York city, presented to the Paulist Fathers, whose establishment is on Fifty-ninth

Street in that metropolis. Here the members of the new Order come to pass their summer vacations, bringing with them their theological students. The Paulists are hard workers, visiting and holding "missions" in Minnesota, California, and other parts of the United States. They seem to feel forcibly the truth expressed in these lines, which are to be found in "Aspirations of Nature," a work written by the founder of their order, Father Hecker: "Existence is not a dream, but a solemn reality. Life was not given to be thrown away on miserable sophisms, but to be employed in earnest search after truth."

Mr. Lockhart kindly offered to escort me to the convent of St. Mary's of the Lake; and after following the mountain road for a quarter of a mile to the north of the cottage of my companion, we entered the shady grounds of the convent and were kindly received on the long piazza by the Father Superior, Rev. A. F. Hewit, who introduced me to several of his co-laborers, a party of them having just returned from an excursion to the Harbor Islands at the northern end of the Narrows, which property is owned by the Order. I was told that the members of this new religious establishment numbered about thirty, and that all but four were converts from our Protestant faith. Their property in New York city is probably worth half a million of dollars, and the Sunday schools under their charge contain about fifteen hundred scholars. Here, among others, I saw Father D – , who gave up his distinguished position as instructor of the art of war at the Military Academy of West Point, to become a soldier of the

Cross, preferring to serve his Master by preaching the gospel of peace to mankind. Under an overhanging rock at a little distance were conversing, most happily, two young priests, who a few years before had fought on opposite sides during the civil strife which resulted in the preservation of the Great Republic.

A mathematician and astronomer from the Cambridge and also from a government observatory, who had donned the cassock, gave me much valuable information in regard to the mountain peaks of Lake George,[1] which he had carefully studied and accurately measured. Through his courtesy and generosity I am enabled to give on the preceding page the results of his labors.

The interesting conversation was here interrupted by the tolling of the convent bell. A deep silence prevailed, as, with uncovered heads and upon bended knees, the whole company most devoutly crossed themselves while repeating a prayer. I felt much drawn towards a young priest with delicate and refined features, who now engaged me in conversation. He was an adept in all that related to boats. He loved the beautiful lake, and was never happier than when upon its mirrored surface, except when laboring at his duties among the poor of the ninth

[1] Heights of mountains of Lake George, New York state, obtained by Rev. George M. Searle, C. S. P.*Finch*, between Buck and Spruce, 1595 feet.*Cat-Head*, near Bolton, 1640 feet.*Prospect Mountain*, west of Lake George village, 1730 feet.*Spruce*, near Buck Mountain, 1820 feet.*Buck*, east shore, south of Narrows, 2005 feet.*Bear*, between Buck and Black, 2200 feet.*Black*, the monarch of Lake George, 2320 feet.From another authority I find that Lake Champlain is ninety-three feet above the Atlantic tide-level, and that Lake George is two hundred and forty feet above Lake Champlain, or three hundred and thirty-three feet above the sea.

district of New York. The son of a distinguished general, he inherited rare talents, which were placed at his Saviour's service. His Christianity was so liberal, his aspirations so noble, his sympathies so strong, that I became much interested in him; and when I left the lake, shortly after, he quietly said, "When you return next summer to build your cottage, let me help you plan the boat-house." But when I returned to the shores of Lake George, after the completion of my voyage to the Gulf of Mexico, no helping hand was there, and I built my boat-house unassisted; for the gentle spirit of the missionary Paulist had gone to God who gave it, and Father Rosencranz was receiving his reward.

When I joined my travelling companion, David Bodfish, he grievously inveighed against the community of Whitehall because some dishonest boatmen from the canal had appropriated the stock of pipes and tobacco he had laid in for his three or four days' voyage to Albany. "Sixty cents' worth of new pipes and tobacco," said David, in injured tones, "is a great loss, and a Bodfish never was worth anything at work without his tobacco. I used to pour *speerits* down to keep my speerits up, but of late years I have depended on tobacco, as the speerits one gets nowadays isn't the same kind we got when I was a boy and worked in old Hawkin Swamp."

Canal voyaging, after one has experienced the sweet influences of lakes George and Champlain, is indeed monotonous. But to follow connecting watercourses it was

necessary for the Mayeta to traverse the Champlain Canal (sixty-four) and the Erie Canal (six miles) from Whitehall to Albany on the Hudson River, a total distance of seventy miles.

There was nothing of sufficient interest in the passage of the canal to be worthy of record save the giving way of a lock-gate, near Troy, and the precipitating of a canal-boat into the vortex of waters that followed. By this accident my boat was detained one day on the banks of the canal. On the fourth day the Mayeta ended her services by arriving at Albany, where, after a journey of four hundred miles, experience had taught me that I could travel more quickly in a lighter boat, and more conveniently and economically without a companion. It was now about the first week in August, and the delay which would attend the building of a new boat especially adapted for the journey of two thousand miles yet to be travelled would not be lost, as by waiting a few weeks, time would be given for the malaria on the rivers of New Jersey, Delaware, and Maryland, and even farther south, to be eradicated by the fall frosts. David returned to his New Jersey home a happy man, invested with the importance which attaches itself to a great traveller. I had unfortunately contributed to Mr. Bodfish's thirst for the marvellous by reading to him at night, in our lonely camp, Jules Verne's imaginative "Journey to the Centre of the Earth." David was in ecstasies over this wonderful contribution to fiction. He preferred fiction to truth at any time. Once, while reading to him a chapter of the above work, his credulity was so challenged that he became excited, and broke

forth with, "Say, boss, how do these big book-men larn to lie so well? does it come nat'ral to them, or is it got by edication?" I have since heard that when Mr. Bodfish arrived in the pine-wood regions of New Jersey he related to his friends his adventures "in furrin parts," as he styled the Dominion of Canada, and so interlaced the *facts* of the cruise of the Mayeta with the *fancies* of the "Journey to the Centre of the Earth," that to his neighbors the region of the St. Lawrence has become a country of awful and mysterious associations, while the more knowing members of the community which David honors with his presence are firmly convinced that there never existed such a boat as the Mayeta save in the wild imagination of David Bodfish.

Mr. Bodfish's fictitious adventures, as related by him, covered many thousand miles of canoe voyaging. He had penetrated the region of ice beyond Labrador, and had viewed with complacency the north pole, which he found to be a pitch-pine spar that had been erected by the Coast Survey "to measure pints from." He roundly censured the crews of whale-ships which had mutilated this noble government work by splitting much of it into kindling-wood. Fortunately about two-thirds of Mr. Bodfish's audience had no very clear conceptions of the character of the north pole, some of them having ignored its very existence. So they accepted this portion of his narrative, while they rejected the most reasonable part of his story.

The Mayeta was sent to Lake George, and afterwards became a permanent resident. Two years later her successor, the Paper

Canoe, one of the most happy efforts of the Messrs. Waters, of Troy, was quietly moored beside her; and soon after there was added to the little fleet a cedar duck-boat, which had carried me on a second voyage to the great southern sea. Here, anchored safely under the high cliffs, rocked gently by the loving waters of Lake George, rest these faithful friends. They carried me over five thousand miles, through peaceful rivers and surging seas. They have shared my dangers; they now share my peace.

CHAPTER V
THE AMERICAN PAPER BOAT AND ENGLISH CANOES

THE PECULIAR CHARACTER OF THE PAPER BOAT. – THE HISTORY OF THE ADOPTION OF PAPER FOR BOATS. – A BOY'S INGENUITY. – THE PROCESS OF BUILDING PAPER BOATS DESCRIBED. – COLLEGE CLUBS ADOPTING THEM. – THE GREAT VICTORIES WON BY PAPER OVER WOODEN SHELLS IN 1876.

INQUIRIES regarding the history and durability of paper boats occasionally reach me through the medium of the post-office. After all the uses to which paper has been put during the last twenty years, the public is yet hardly convinced that the flimsy material, paper, can successfully take the place of wood in the construction of light pleasure-boats, canoes, and racing shells. Yet the idea has become an accomplished fact. The success of the victorious paper shells of the Cornell College navy, which were enlisted in the struggles of two seasons at Saratoga, against no mean antagonists, – the college crews of the United States, – surely proves that in strength, stiffness, speed, and fineness of model, the paper boat is without a rival.

When used in its own peculiar sphere, the improved paper

boat will be found to possess the following merits: less weight, greater strength, stiffness, durability, and speed than a wooden boat of the same size and model; and the moulded paper shell will retain the delicate lines so essential to speed, while the brittle wooden shell yields more or less to the warping influences of sun and moisture. A comparison of the strength of wood and paper for boats has been made by a writer in the Cornell Times, a journal published by the students of that celebrated New York college:

> "Let us take a piece of wood and a piece of paper of the same thickness, and experiment with, use, and abuse them both to the same extent. Let the wood be of one-eighth of an inch in thickness – the usual thickness of shell-boats, and the paper heavy pasteboard, both one foot square. Holding them up by one side, strike them with a hammer, and observe the result. The wood will be cracked, to say the least; the pasteboard, whirled out of your hand, will only be dented, at most. Take hold and bend them: the wood bends to a certain degree, and then splits; the pasteboard, bent to the same degree, is not affected in the least. Take a knife and strike them: the wood is again split, the pasteboard only pierced. Place them on the water: the wood floats for an indefinite time; the pasteboard, after a time, soaks, and finally sinks, as was to be expected. But suppose we soak the pasteboard in marine glue before the experiment, then we find the pasteboard equally as impervious to the water as wood, and as buoyant, if of the same weight; but, to be of the same weight, it must be thinner than the wood, yet even

then it stands the before-mentioned tests as well as when thicker; and it will be found to stand all tests much better than wood, even when it weighs considerably less.

"Now, enlarging our pieces, and moulding them into boats of the same weight, we find the following differences: Wood, being stiff and liable to split, can only be moulded into comparative form. Paper, since it can be rendered perfectly pliable, can be pressed into any shape desirable; hence, any wished-for fineness of lines can be given to the model, and the paper will assume the identical shape, after which it can be water-proofed, hardened, and polished. Paper neither swells, nor shrinks, nor cracks, hence it does not leak, is always ready for use, always serviceable. As to cost, there is very little difference between the two; the cost being within twenty-five dollars, more or less, the same for both. Those who use paper boats think them very near perfection; and surely those who have the most to do with boats ought to know, prejudice aside, which is the best."

An injury to a paper boat is easily repaired by a patch of strong paper and a coating of shellac put on with a hot iron. As the paper boat is a novelty with many people, a sketch of its early history may prove interesting to the reader. Mr. George A. Waters, the son of the senior member of the firm of E. Waters & Sons, of Troy, New York, was invited some years since to a masquerade party. The boy repaired to a toy shop to purchase a counterfeit face; but, thinking the price (eight dollars) was more than he could afford for a single evening's sport, he borrowed the mask for a model, from which he produced a duplicate as perfect as

was the original. While engaged upon his novel work, an idea impressed itself upon his ingenious brain. "Cannot," he queried, "a paper shell be made upon the wooden model of a boat? And will not a shell thus produced, after being treated to a coat of varnish, float as well, and be lighter than a wooden boat?"

This was in March, 1867, while the youth was engaged in the manufacture of paper boxes. Having repaired a wooden shell-boat by covering the cracks with sheets of stout paper cemented to the wood, the result satisfied him; and he immediately applied his attention to the further development of his bright idea. Assisted by his father, Mr. Elisha Waters, the enterprise was commenced "by taking a wooden shell, thirteen inches wide and thirty feet long, as a mould, and covering the entire surface of its bottom and sides with small sheets of strong Manila paper, glued together, and superposed on each other, so that the joints of one layer were covered by the middle of the sheet immediately above, until a sheet of paper had been formed one-sixteenth of an inch in thickness. The fabric thus constructed, after being carefully dried, was removed from the mould and fitted up with a suitable frame, consisting of a lower keelson, two inwales, the bulkhead; in short, all the usual parts of the frame of a wooden shell, except the timbers, or ribs, of which none were used – the extreme stiffness of the skin rendering them unnecessary. Its surface was then carefully water-proofed with suitable varnishes, and the work was completed. Trials proved that, rude as was this first attempt compared with the elegant craft now turned

out from paper, it had marked merits, among which were, its remarkable stiffness, the symmetry of the hull with respect to its long axis, and the smoothness of the water-surface."

A gentleman, who possesses excellent judgment and long experience in all that relates to paper boats, furnishes me with the following valuable information, which I feel sure will interest the reader.

> "The process of building the paper shell-boat is as follows: The dimensions of the boat having been determined upon, the first step is to construct a wooden model, or form, an exact fac-simile of the desired boat, on which to mould the paper skin. For this purpose the lines of the boat are carefully drawn out of the full size, and from the drawings thus made the model is prepared. It is built of layers of well-seasoned pine, securely fastened together to form one solid mass; which, after having been laid up of the general outline required, is carefully worked off, until its surface, which is made perfectly smooth, exactly conforms to the selected lines, and its beam, depth, and length are those of the given boat. During the process of its construction, suitable rabbets are cut to receive the lower keelson, the two inwales, and the bow and stern deadwoods, which, being put in position, are worked off so that their surfaces are flush with that of the model, and forming, as it were, an integral part of it. It being important that these parts should, in the completed boat, be firmly attached to the skin, their surface is, at this part of the process, covered with a suitable adhesive preparation.

"The model is now ready to be covered with paper. Two kinds are used: that made from the best Manila, and that prepared from pure unbleached linen stock; the sheets being the full length of the model, no matter what that may be. If Manila paper is used, the first sheet is dampened, laid smoothly on the model, and securely fastened in place by tacking it to certain rough strips attached to its upper face. Other sheets are now superposed on this and on each other, and suitably cemented together; the number depending upon the size of the boat and the stiffness required. If linen paper is used, but one sheet is employed, of such weight and dimensions that, when dry, it will give just the thickness of skin necessary. Should the surface of the model be concave in parts, as in the run of boats with square sterns for instance, the paper is made to conform to these surfaces by suitable convex moulds, which also hold the paper in place until, by drying, it has taken and will retain the desired form. The model, with its enveloping coat of paper, is now removed to the dry-room. As the paper skin dries, all wrinkles disappear, and it gradually assumes the desired shape. Finally, when all moisture has been evaporated, it is taken from the mould an exact fac-simile of the model desired, exceedingly stiff, perfectly symmetrical, and seamless.

"The paper is now subjected to the water-proof process, and the skin, with its keelson, inwales, and deadwoods attached, is then placed in the carpenter's hands, where the frame is completed in the usual manner, as described for wooden boats. The paper decks being put on, it is then

ready for the brass, iron, and varnish work. As the skins of these boats (racing-shells) vary from one-sixteenth of an inch in the singles, to one-twelfth of an inch in the six-oared outriggers, the wooden frame becomes necessary to support and keep them in shape. In applying this invention to gigs, dingys, canoes, and skiffs, a somewhat different method is adopted. Since these boats are subjected to much hard service, and must be so constructed as to permit the occupant to move about in them as is usual in such craft, a light and strong frame of wood is prepared, composed of a suitable number of pairs of ribs, with stem and stern pieces cut from the natural crooks of hackmatack roots. These are firmly framed to two gunwales and a keelson, extending the length of the boat; the whole forming the skeleton shape of the desired model. The forms for these boats having been prepared, as already described for the racing-shells, and the frame being let into this form, so that the outer surface of the ribs, stem and stern pieces will conform with its outer surface, the paper skin is next laid upon it. The skin, manufactured from new, unbleached linen stock, is carefully stretched in place, and when perfectly dry is from one-tenth to three-sixteenths of an inch thick. Removed from the model, it is water-proofed, the frame and fittings completed, and the boat varnished. In short, in this class of boats, the shape, style, and finish are precisely that of wooden ones, of corresponding dimensions and class, except that for the usual wooden sheathing is substituted the paper skin as described.

"The advantages possessed by these boats over those of

wood are:

"By the use of this material for the skins of racing-shells, where experience has demonstrated the smooth bottom to be the best, under-water lines of any degree of fineness can be developed, which cannot successfully be produced in those of wood, even where the streaks are so reduced in thickness that strength, stiffness, and durability are either wholly sacrificed or greatly impaired. In the finer varieties of 'dug-outs' equally fine lines can be obtained; but so delicate are such boats, if the sides are reduced to three-sixteenths of an inch or less in thickness, that it is found practically impossible to preserve their original forms for any length of time. Hence, so far as this point is concerned, it only remains for the builder to select those models which science, guided by experience, points out as the best.

"The paper skin, after being water-proofed, is finished with hard varnishes, and then presents a solid, perfectly smooth, and horny surface to the action of the water, unbroken by *joint*, *lap*, or *seam*. This surface admits of being polished as smooth as a coach-panel or a mirror. Unlike wood, *it has no grain to be cracked or split, it never shrinks*, and, paper being one of the best of non-conductors, no ordinary degree of heat or cold affects its shape or hardness, and hence these boats are admirably adapted for use in all climates. As the skin absorbs no moisture, *these boats gain no weight by use*, and, having no moisture to give off when out of the water, they do not, like wooden boats, show the effect of exposure to the air by leaking. They are, therefore, in this respect always prepared for service.

"The strength and stiffness of the paper shells are most remarkable. To demonstrate it, a single shell of twelve inch beam and twenty-eight feet long, fitted complete with its outriggers, the hull weighing twenty-two pounds, was placed on two trestles eight feet apart, in such a manner that the trestles were each the same distance from the centre of the cockpit, which was thus entirely unsupported. A man weighing one hundred and forty pounds then seated himself in it, and remained in this position three minutes. The deflection caused by this strain, being accurately measured, was found to be one-sixteenth of an inch at a point midway between the supports. If this load, applied under such abnormal conditions, produced so little effect, we can safely assume that, when thus loaded and resting on the water, supported throughout her whole length, and the load far more equally distributed over the whole frame, there would be no deflection whatever.

"Lightness, when combined with a proper, stiffness and strength, being a very desirable quality, it is here that the paper boats far excel their wooden rivals. If two shells are selected, the one of wood and the other with a paper skin and deck, as has been described, *of the same dimensions and equally stiff*, careful experiment proves that the wooden one will be *thirty per cent. the heaviest*. If those of the *same dimensions and equal weight* are compared, the paper one will be found to exceed the wooden one in stiffness and in capacity to resist torsional strains in the same proportion. Frequent boasts are made that wooden shells can be and are built much lighter than paper ones; and if the quality

of lightness *alone* is considered, this is true; yet when the practical test of *use* is applied, such extremely light wooden boats have always proved, and will continue to prove, failures, as here this quality is only *one* of a number which combine to make the boat serviceable. A wooden shell whose hull weighs twenty-two pounds, honest weight, is a very fragile, short-lived affair. A paper shell of the same dimensions, and of the same weight, will last as long, and do as much work, as a wooden one whose hull turns the beam at thirty pounds.

"An instance of their remarkable strength is shown in the following case. In the summer of 1870, a single shell, while being rowed at full speed, with the current, on one of our principal rivers, was run into the stone abutment of a bridge. The bow struck squarely on the obstacle, and such was the momentum of the mass that the oarsman was thrown directly through the flaring bow of the cockpit into the river. Witnesses of the accident who were familiar with wooden shells declared that the boat was ruined; but, after a careful examination, only the bow-tip was found to be twisted in a spiral form, and the washboard broken at the point by the oarsman as he passed between the sides. Two dollars covered the cost of repair. Had it been a wooden shell the shock would have crushed its stem and splintered the skin from the bow to the waist."

Old and cautious seamen tried to dissuade me from contracting with the Messrs. Waters for the building of a stout paper canoe for my journey. Harvard College had not

adopted this "new-fangled notion" at that time, and Cornell had only begun to think of attempting to out-row other colleges at Saratoga by using paper boats. The Centennial year of the independence of the United States, 1876, settled all doubts as to the value of the result of the years of toil of the inventors of the paper boat. During the same year the incendiary completed his revengeful work by burning the paper-boat manufactory at Troy. The loss was a heavy one; but a few weeks later these unflinching men were able to record the following victories achieved that single season by their boats.

The races won by the paper boats were:

The Intercollegiate Championship:
Freshmen and University.

The International Championship at Saratoga:
Singles, Doubles, and Fours.

The National Championship, N. A. of A. O.:
Singles, Doubles, and Fours.

The World's Championship at Centennial Exhibition:
Singles, Doubles, and Fours.

The Professional Championship of the United States.

And every other important race of the season, besides receiving the highest honors at the Centennial Exhibition. The right to make boats of paper in Canada and in the United States is exclusively held by the Messrs. Waters, and they are the only manufacturers of paper boats in the world.

It is not many years since Mr. Macgregor, of London, built the little Rob Roy canoe, and in it made the tour of interesting

European waters. His example was followed by an army of tourists, and it is now a common thing to meet canoe voyagers in miniature flotillas upon the watercourses of our own and foreign lands. Mr. W. Baden-Powell, also an Englishman, perfected the model of the Nautilus type of canoe, which possesses a great deal of sheer with fullness of bow, and is therefore a better boat for rough water than the Rob Roy. The New York Canoe Club, in 1874, had the Nautilus for their model. We still need a distinctive American type for our waters, more like the best Indian canoe than the European models here presented. These modern yacht-like canoes are really improved *kyaks*, and in their construction we are much indebted to the experience of the inhabitants of the Arctic Circle. Very few of the so-called Rob Roy canoes, built in the United States, resemble the original perfected boat of Mr. Macgregor – the father of modern canoe travelling. The illustrations given of English canoes are from imported models, and are perfect of their type.

CHAPTER VI
TROY TO PHILADELPHIA

PAPER CANOE MARIA THERESA. – THE START. – THE DESCENT OF THE HUDSON RIVER. – CROSSING THE UPPER BAY OF NEW YORK. – PASSAGE OF THE KILLS. – RARITAN RIVER. – THE CANAL ROUTE FROM NEW BRUNSWICK TO THE DELAWARE RIVER. – FROM BORDENTOWN TO PHILADELPHIA.

MY canoe of the English "Nautilus" type was completed by the middle of October; and on the cold, drizzly morning of the 21st of the same month I embarked in my little fifty-eight pound craft from the landing of the paper-boat manufactory on the river Hudson, two miles above Troy. Mr. George A. Waters put his own canoe into the water, and proposed to escort me a few miles down the river. If I had any misgivings as to the stability of my paper canoe upon entering her for the first time, they were quickly dispelled as I passed the stately Club-house of the Laureates, which contained nearly forty shells, *all* of paper.

The dimensions of the Maria Theresa were: length, fourteen feet; beam, twenty-eight inches; depth, amidships, nine inches; height of bow from horizontal line, twenty-three inches; height of stern, twenty inches. The canoe was one-eighth of an inch in

thickness, and weighed fifty-eight pounds. She was fitted with a pair of steel outriggers, which could be easily unshipped and stowed away. The oars[2] were of spruce, seven feet eight inches long, and weighed three pounds and a quarter each. The double paddle, which was seven feet six inches in length, weighed two pounds and a half. The mast and sail – which are of no service on such a miniature vessel, and were soon discarded – weighed six pounds. When I took on board at Philadelphia the canvas deck-cover and the rubber strap which secured it in position, and the outfit, – the cushion, sponge, provision-basket, and a fifteen-pound case of charts, – I found that, with my own weight included (one hundred and thirty pounds), the boat and her cargo, all told, provisioned for a long cruise, fell considerably short of the weight of three Saratoga trunks containing a very modest wardrobe for a lady's four weeks' visit at a fashionable watering-place.

The rain ceased, the mists ascended, and the sunlight broke upon us as we swiftly descended upon the current of the Hudson to Albany. The city was reached in an hour and a half. Mr. Waters, pointing his canoe northward, wished me *bon voyage*,

[2] Note to Page 72. – The author has been criticised by technical canoeists for using oars on a canoe. On this cruise, experience proved that the paddle could be used effectively only two miles out of every three. Head winds and seas frequently drive the paddler into camp, while the adaptive cruiser pushes on with oar and outrigger, and avoids the loss of many hours. Many canoeists exploring our broad watercourses have adopted the oar as an auxiliary, – the paddle properly taking the precedence. We are progressing. The canoeist of 1882 may follow the teachings of common-sense *vs.* unauthorized technical criticisms. Oars on a light paddling canoe are out of place; but are a most effective power on a heavy cruising canoe, insuring a successful voyage.

and returned to the scene of the triumphs of his patient labors, while I settled down to a steady row southward. At Albany, the capital of the state, which is said to be one hundred and fifty miles distant from New York city, there is a tidal rise and fall of one foot.

A feeling of buoyancy and independence came over me as I glided on the current of this noble stream, with the consciousness that I now possessed the right boat for my enterprise. It had been a dream of my youth to become acquainted with the charms of this most romantic river of the American continent. Its sources are in the clouds of the Adirondacks, among the cold peaks of the northern wilderness; its ending may be said to be in the briny waters of the Atlantic, for its channel-way has been sounded outside of the sandy beaches of New York harbor in the bosom of the restless ocean. The highest types of civilized life are nurtured upon its banks. Noble edifices, which contain and preserve the works of genius and of mechanical art, rear their proud roofs from among these hills on the lofty sites of the picturesque Hudson. The wealth of the great city at its mouth, the metropolis of the young nation, has been lavished upon the soil of the river's borders to make it even more beautiful and more fruitful. What river in America, along the same length of coast-lines as from Troy to New York (one hundred and fifty-six miles), can rival in natural beauty and artificial applications of wealth the lovely Hudson? "The Hudson River," says its genial historian, Mr. Lossing, "from its birth among the mountains to

its marriage with the ocean, measures a distance of full three hundred miles."

Captain John Smith's friend, the Englishman Henry Hudson, while in the employ of the Dutch East India Company, in his vessel of ninety tons, the Half-Moon, being in search of a northwest passage south of Virginia, cast anchor outside of Sandy Hook, September 3, 1609, and on the 11th passed up through the Narrows into the present bay of New York. Under the firm conviction that he was on his way to the long-sought Cathay, a day later he entered the Hudson River, where now stands the proud metropolis of America. As the Half-Moon ascended the river the water lost its saltness, and by the time they were anchored where the city of Albany now stands all hopes of Cathay faded from the heart of the mariner. Englishmen called this river in honor of its discoverer, but the Dutch gave it the name of North River, after the Delaware had been discovered and named South River. Thus, while in 1609 Samuel Champlain was exploring the lake which bears his name, Hudson was ascending his river upon the southern water-shed. The historian tells us that these bold explorers penetrated the wilderness, one from the north and the other from the south, to within one hundred miles of each other.

The same historian (Dr. Lossing) says: "The most remote source of the extreme western branch of our noble river is Hendricks Spring, so named in honor of Hendricks Hudson. We found Hendricks Spring in the edge of a swamp, cold, shallow,

about five feet in diameter, – shaded by trees, shrubbery, and vines, and fringed with the delicate brake and fern. Its waters, rising within half a mile of Long Lake, and upon the same summit-level, flow southward to the Atlantic more than three hundred miles; while those of the latter flow to the St. Lawrence, and reach the same Atlantic a thousand miles away to the far northeast."

Since Dr. Lossing visited the western head of the Hudson River, the true and highest source of the stream has probably been settled by a gentleman possessing scientific acquirements and inflexible purpose. On the plateau south of Mount Marcy, State-Surveyor Colvin found the little Lake Tear-of-the-Clouds to be the loftiest sheet of water in the state, – four thousand three hundred and twenty-six feet above the sea, – and proved it to be the lake-head of the great river Hudson. A second little pond in a marsh on a high plateau, at the foot of Mount Redfield, was also discovered, – "margined and embanked with luxuriant and deep sphagnous moss," – which was named by the party Moss Lake. It was found to flow into the Hudson. A beautiful little bivalve shell, three-sixteenths of an inch in diameter, of an undescribed species, was found in the pellucid water, and thus a new shell was handed over to conchology, and a new river source to geography, in the same hour. This pool is four thousand three hundred and twelve feet above tide-water, and only a few feet lower than its sister, Tear-of-the-Clouds – the highest source of the Hudson.

Should the state of New York adopt Mr. Colvin's suggestion,

to reserve six hundred square miles of the Adirondack region for a public park, the pool Tear-of-the-Clouds will be within the reservation. The waters of these baby fountains are swollen by contributions from the streams, ponds, and lakes of the Adirondack wilderness, until along the banks of Fishing Brook, a tributary of the Hudson, the water is utilized at the first saw-mill. A few miles lower down the forests are vexed by the axe of the lumbermen, and logs are floated down the river one hundred miles to Glens Falls, where the State Dam and Great Boom are located. Half a million logs have been gathered there in a single spring.

It was upon the Hudson that the first successful steamboat, built by Robert Fulton, made its voyage to Albany, the engine having been built by Watt & Bolton, in England.

From Mr. Lossing we obtain the following.

"The Clermont was one hundred feet long, twelve feet wide, and seven feet deep. The following advertisement appeared in the Albany Gazette on the 1st of September, 1807:

"The North River steamboat will leave Paulus Hook (Jersey City) on Friday, the 4th of September, at 9 in the morning, and arrive at Albany on Saturday at 9 in the afternoon. Provisions, good berths, and accommodations are provided. The charge to each passenger is as follows:

To	Newburgh,	3	Dollars		Time,	14	hours.	
"	Poughkeepsie,	4	"		"	17	"	
"	Esopus,	5	"		"	20	"	
"	Hudson,	5½	"		"	30	"	
"	Albany,	7	"		"	36	"	."

The trip, which was made against a strong head wind, was entirely successful. The large steamers can now make the trip from New York to Albany in about twelve hours.

As I pulled easily along the banks of the river, my eyes feasted upon the gorgeous coloring of the autumnal foliage, which formed a scene of beauty never to be forgotten. The rapid absorption of oxygen by the leaves in the fall months produces, in northern America, these vivid tints which give to the country the appearance of a land covered with a varied and brilliant garment, "a coat of many colors." A soft, hazy light pervaded the atmosphere, while at the same time the October air was gently exhilarating to the nervous system. At six o'clock p. m. the canoe arrived at Hudson City, which is on the east bank of the river, and I completed a row of thirty-eight statute miles, according to local authority; but in reality forty-nine miles by the correct charts of the United States Coast Survey. After storing the Maria Theresa in a shed, I repaired to a dismal hotel for the night.

At seven o'clock the next morning the river was mantled in a dense fog, but I pushed off and guided myself by the sounds of the running trains on the Hudson River Railroad. This

corporation does such an immense amount of freighting that, if their freight trains were connected, a continuous line of eighty miles would be constructed, of which sixteen miles are always in transit day and night. Steamboats and tugs with canal-boats in tow were groping about the river in the misty darkness, blowing whistles every few minutes to let people know that the pilot was not sleeping at the wheel. There was a grand clearing up at noon; and as the sun broke through the mist, the beautiful shores came into view like a vivid flame of scarlet, yellow, brown, and green. It was the death-song of summer, and her dying notes the tinted leaves, each one giving to the wind a sad strain as it softly dropped to the earth, or was quickly hurled into space.

A few miles south of Hudson City, on the west bank, the Catskill stream enters the river. From this point the traveller may penetrate the picturesque country of the Appalachian range, where its wild elevations were called *Onti Ora*, or "mountains of the sky," by the aborigines.

Rondout, on the right bank of the Hudson, is the terminus of the Delaware and Hudson Canal, which connects it with Port Jervis on the Delaware, a distance of fifty-four miles. This town, the outlet of the coal regions, I passed after meridian. As I left Hudson on the first of the flood-tide, I had to combat it for several hours; but I easily reached Hyde Park Landing (which is on the left bank of the stream and, by local authority, thirty-five miles from Hudson City) at five o'clock p. m. The wharf-house sheltered the canoe, and a hotel in the village, half a mile

distant on the high plains, its owner. I was upon the river by seven o'clock the next morning. The day was varied by strong gusts of wind succeeded by calms. Six miles south of Hyde Park is the beautiful city of Poughkeepsie with its eighteen thousand inhabitants, and the celebrated Vassar Female College. Eight miles down the river, and on the same side, is a small village called New Hamburg. The rocky promontory at the foot of which the town is built is covered with the finest arbor vitæ forest probably in existence. Six miles below, on the west bank, is the important city of Newburg, one of the termini of the New York and Erie Railroad. Four miles below, the river narrows and presents a grand view of the north entrance of the Highlands, with the Storm King Mountain rising fully one thousand five hundred feet above the tide. The early Dutch navigators gave to this peak the name of *Boter-burg* (Butter-Hill), but it was rechristened Storm King by the author N. P. Willis, whose late residence, Idlewild, commands a fine view of Newburg Bay.

When past the Storm King, the Crow-Nest and the almost perpendicular front of Kidd's Plug Cliff tower aloft, and mark the spot where Kidd (as usual) was supposed to have buried a portion of that immense sum of money with which popular belief invests hundreds of localities along the watercourses of the continent. Now the Narrows above West Point were entered, and the current against a head-wind made the passage unusually exciting. The paper canoe danced over the boiling expanse of water, and neared the west shore about a mile above the United States

Military Academy, when a shell, from a gun on the grounds of that institution, burst in the water within a few feet of the boat. I now observed a target set upon a little flat at the foot of a gravelly hill close to the beach. As a second, and finally a third shell exploded near me, I rowed into the rough water, much disgusted with cadet-practice and military etiquette. After dark the canoe was landed on the deck of a schooner which was discharging slag or cinder at Fort Montgomery Landing. I scrambled up the hill to the only shelter that could be found, a small country store owned by a Captain Conk who kept entertainment for the traveller. Rough fellows and old crones came in to talk about the spooks that had been seen in the neighboring hills. It was veritable "Sleepy Hollow" talk. The physician of the place, they said, had been "skert clean off a bridge the other night."

Embarking the following morning from this weird and hilly country, that prominent natural feature, Anthony's Nose, which was located on the opposite shore, strongly appealed to my imagination and somewhat excited my mirth. One needs a powerful imagination, I thought, to live in these regions where the native element, the hill-folk, dwell so fondly and earnestly upon the ghostly and mysterious. Three miles down the river, Dunderberg, "the thundering mountain," on the west bank, with the town of Peekskill on the opposite shore, was passed, and I entered Haverstraw Bay, the widest part of the river. "Here," says the historian, "the fresh and salt water usually contend, most equally, for the mastery; and here the porpoise is often

seen in large numbers sporting in the summer sun. Here in the spring vast numbers of shad are caught while on their way to spawning-beds in fresh-water coves." Haverstraw Bay was crossed, and Tarrytown passed, when I came to the picturesque little cottage of a great man now gone from among us. Many pleasant memories of his tales rose in my mind as I looked upon Sunnyside, the home of Washington Irving, nestled in the grove of living green, its white stuccoed walls glistening in the bright sunlight, and its background of grand villas looming up on every side. At Irvington Landing, a little further down the river, I went ashore to pass Sunday with friends; and on the Monday following, in a dense fog, proceeded on my route to New York.

Below Irvington the far-famed "Palisades," bold-faced precipices of trap-rock, offer their grandest appearance on the west side of the Hudson. These singular bluffs, near Hoboken, present a perpendicular front of three hundred or four hundred feet in height. Piles of broken rock rest against their base: the contribution of the cliffs above from the effects of frost and sun.

While approaching the great city of New York, strong squalls of wind, blowing against the ebb-tide, sent swashy waves into my open canoe, the sides of which, amidships, were only five or six inches above water; but the great buoyancy of the light craft and its very smooth exterior created but little friction in the water and made her very seaworthy, when carefully watched and handled, even without a deck of canvas or wood. While the canoe forged ahead through the troubled waters, and the breezes

loaded with the saltness of the sea now near at hand struck my back, I confess that a longing to reach Philadelphia, where I could complete my outfit and increase the safety of my little craft, gave renewed vigor to my stroke as I exchanged the quiet atmosphere of the country for the smoke and noise of the city. Every instinct was now challenged, and every muscle brought into action, as I dodged tug-boats, steamers, yachts, and vessels, while running the thoroughfare along the crowded wharves between New York on one side and Jersey City on the other. I found the slips between the piers most excellent ports of refuge at times, when the ferry-boats, following each other in quick succession, made the river with its angry tide boil like a vortex. The task soon ended, and I left the Hudson at Castle Garden and entered the upper bay of New York harbor. As it was dark, I would gladly have gone ashore for the night, but a great city offers no inducement for a canoeist to land as a stranger at its wharves.

A much more pleasant reception awaited me down on Staten Island, a gentleman having notified me by mail that he would welcome the canoe and its owner. The ebb had ceased, and the incoming tide was being already felt close in shore; so with tide and wind against me, and the darkness of night settling down gloomily upon the wide bay, I pulled a strong oar for five miles to the entrance of Kill Van Kull Strait, which separates Staten Island from New Jersey and connects the upper bay with Raritan Bay.

Конец ознакомительного фрагмента.