

once does not go beyond a row boat on Toronto Bay, or the adventures of a pleasure yacht. The latter are by profession sailors. At the grand military review at Toronto, we were witness to the manly appearance, the steady evolutions and sailorly aspect of the naval company of that place, and could have believed they had come newly ashore from a man-of-war, unless informed to the contrary. The Burlington Bay Brigade are not only like sailors in uniform, discipline and evolutions, but they are to a man the sons of breeze, and gale, and storm, practical hands in navigation or marine, firemen and engineers. Their commander, Captain Harbottle, expended over \$500 on their uniform in 1863, besides he and the other officers giving their own time to the organization during winter, and paying for a drill master. All that the Canadian government did was to send them fifty-five rifles from Quebec, the property of the British nation, not of Canada.

Incidentally last week, allusion was made in these pages to the misapplication of extra duties on teas and sugars in 1862 by a combination of importing merchants, or by a singular coincidence of commercial instincts. If some member of either House, when Parliament meets, should move for and obtain a return of all teas and sugars which entered the Province between the 31st of May and 9th of June, 1862, it will be discovered that a much larger amount of public revenue went into private pockets than would have paid handsomely for the Militia, military and naval.

It may be objected that Upper Canada has no immediate in the Gulf and Newfoundland Fisheries. But the treaty of 1854, while giving the advantages of free fishing to the United States, confers on Upper Canada advantages purchased from the States by the concession of free fishing.

Mr. Gerritt Smith, an American gentleman of mark, has recently said: "I hope my country will not be guilty of the illiberality and unsound political economy of refusing to exchange natural productions with any country. The complaint is, that Canada sells too much to us. But if she be profited by selling to us, so are we by buying of her. If the lumberman in Maine cannot get as much for his lumber under the Reciprocity Treaty, there is, nevertheless, a full equivalent in the fact that the builder in Ohio buys his lumber far cheaper because of that Treaty. Is it a gain to sell dear, so is it also a gain to buy cheap. We have now free access to the vast and rich forests of Canada. What a folly to cut ourselves off from this advantage for the miserable reason that Canada enjoys a corresponding advantage; that while we reap the profit of buying her lumber, she reaps the profit of selling it to us. But it is held that the price of our wheat, as well as our lumber, is reduced by the Canadian competition. Can it, however, make any material difference to our farmers whether Canada wheat goes to Liverpool by the St. Lawrence, or by New York and Boston? Both our country and Canada grow a surplus of wheat; and hence, in the case of both the price is regulated by the foreign market."

In Canada we have also complaints against the reciprocal interchange of commodities across the frontier.

The moral, if there be a moral deducible from anything said, and it is but incidentally touched, about the naval volunteers of Upper Canada, one hundred and ten in all, only one half of them drilled and clothed in uniform by the Government, and they not practical sailors, the moral is this, that a million and a quarter of people inhabiting Upper Canada should contentedly admit the United States with hook and line, bob and sinker, to Gaspe Bay, or anywhere else, to take as many fish as may take their bait; and in return ask for the prolongation of the Treaty, and such amicable relations as will make Canadian naval volunteers unnecessary.

A CENTURY OF INVENTIONS.

But one step from the sublime to the ridiculous! If so, how many steps from the ridiculous to the sublime? James Hargreaves, a Lancashire weaver, saw a maiden rise from her spinning wheel and slap a young man's face who had been impertinent. The wheel was over-turned; the revolving spindle, which before was horizontal, now pointed vertically, and the vertically set wheel revolved horizontally. A thought—a sudden inspiration, and Hargreaves conceived that if a band from a wheel could turn one vertical spindles it might turn ten or twelve, or a hundred, but he was content with an inventive dream of turning twelve. He made the machine from that first idea, and named it the Spinning Jenny.

That occurred in 1764, this time one hundred years. To no mortal man can a centenary celebration be more justly due than to the originator of that spinning machinery, which was the initial movement in a social and commercial revolution, surpassing in its realities all the fictions of magic that were ever imagined.

In another article touching the Gulf fisheries, the warlike expedition from Massachusetts against Louisburg in 1757-8, is mentioned. Looking at the evil passions manifested in the internecine war now devastating the North American Republic, it might be inferred that there had been no step in human progress in the one hundred and seven years intervening between the war against the French in Cape Breton in behalf of free fishing, and the war against the Southern Confederacy in behalf of free cotton field labor. Yet the hundred years from the mechanical inspiration of James Hargreaves to the present time, have been emphatically the century of inventions. But, again, of inventions and discoveries: have they not seemed as if only one step to exalted morality and social beneficence, or to diabolical destruction? Such is the terrible confession of fact. But, on the contrary side, the side of Heaven, man has been abundantly endowed with reason to discern between the step heavenward, and the step diabolical.

While Hargreaves was being stoned out of Lancashire to his refuge in Derbyshire for having made one machine spin as much cotton weft as twelve women did before, Richard Arkwright was devising his plan of spinning with rollers, a pair of fast going rollers drawing the thread from a pair of slower motion. And while working at his invention in the cellar of Smalley the Preston publican, the election came on at which the inventor, as a born freeman was entitled to vote, but could not for want of other clothing than the rags to which he was reduced by reason of time lost on his unperfected machine.

Then again was seen the ludicrous within a step of the sublime. Mrs. Arkwright, finding her husband in Smalley's cellar chased him forth to the street, her weapon of offence a three-footed stool. In that dilemma the inventor was offered a new coat to go to the hustings if he would promise to vote for the Earl of Derby's relative, General Burgoyne, which he did, and in consequence was better clothed. Then he perfected his machine and aided in clothing the human race. He, too, was driven to Derbyshire. At one of the factories established there the boy Samuel Slater, son of a farmer, was apprenticed. Samuel Slater broke the law prohibiting any drawing of cotton-spinning machinery or skilled cotton worker going out of the kingdom. He clandestinely went to America, and became the father of cotton spinning at Pawtucket for the whole United States. But one whom we have just named went to America before him. The Earl of Derby's influence obtained the appointment to military command of the member for Preston, he from whom Arkwright obtained a garment for his vote. General Burgoyne went to America and succumbed to ill-fortune; he surrendered his army, while Arkwright went ahead spinning and weaving, and left behind him at death several cotton-mills, landed estates, and seven hundred thousand pounds sterling in money.

Not so fortunate was Samuel Crompton, yet his invention, which combined the spindles of Hargreaves and rollers of Arkwright, in the machine called the "mule," was more valuable than either of the others by itself. He was mowing one hot day of July near Hall-i-th-wood, his humble residence. He threw down his scythe, went home scratching his towzy head, crying aloud "aw ha' it; aw got it!"—the step ludicrous. Then after being shut up in his garret for a time he came forth—the step sublime—with the machine perfected. In 1860, the wealthy cotton-spinners built a monument to him in the town of Bolton, and gave his son, an old man, a small pension.

Following Crompton's time came the long strike of mule-spinners, and Mr. Roberts, once a hedger, ditcher and quarryman, who, as he told the present writer, had made and mended his own shoes; he, when a member of the great machine-making firm of Sharp, Roberts & Co., of Manchester, invented the self-acting mule. And that is a name of reproach, by the way, given to worthy John Fielden, of Todmorden, by Quaker John Bright, because the great firm of the Todmorden Fieldens would not work in harness with the Manchester Anti-Corn-law League. Yes, John Bright's greatest success in witticism was that of calling John Fielden, "The Self-Acting Mule."

To what would a history of the century of inventions lead? To the grandest volume written since the New Tes-

tament. In 1764, James Hargreaves gave out the psalm, and the genius of civilization has sung it ever since. Steam engines, Electric Telegraphs, Ocean-going ships of five thousand horse power, and railways achieving conquests over space which all the horses of the world could not accomplish, and the marvellous skill which is constructing machines to make machinery—a genius more god-like than human; these, despite of evil devices, moral obliquities, passions and crimes leading to war, have taken up the anthem of which Hargreaves gave the first line, and are ever proclaiming onward. Even in Canada, from end to end, careering on railways through primeval forests, constructing rolling mills for railways at Montreal, Toronto and Hamilton, and spanning mightiest rivers and torrents on flying bridges; these, the voices of genius, are singing the anthem, onward! upward! forward, Canada!

WINTER SPORTS IN CANADA.

BY W. B., MONTREAL.

TOBOGANING.

For some reason or other, this fine Canadian amusement of Toboganing seems to have been out of fashion these past few years; we don't know Toboganing as much as we used to, and I think it a great pity, for it is one of the healthiest and most agreeable of our winter sports, and being peculiarly Canadian—like snow-shoeing—it ought to be more in vogue in Canada. I was very glad lately to see that a Toboganing Club in connection with snow-shoeing has been started in Kingston—a capital idea—and I hope my Kingston friends will meet very often for the snow-shoe tramp, and enliven their fine hill of Fort Henry with their Toboganing parties; and I also hope that the excellent example set by Kingston may find imitators in our other Canadian cities and towns. In Canada we have so many opportunities for the thorough enjoyment of both of these sports, that it is to be regretted we do not oftener avail ourselves of them. The Tobogan is an Indian invention. It is made of two thin pieces of wood, from five to eight feet long, by about one or two feet broad, turned up in front. There are two small round poles run down the sides of the sled to strengthen it, and cross pieces here and there to give it still greater strength. Originally it was used by the Indians to drag home the animals or game they killed; but the pale-face uses it more for amusement than anything else, though in some of our deer-hunting forays in winter, when a party of us would go off for a week's camp, we found it a very convenient and expeditious substitute for a sleigh, also a capital thing to pack our guns, &c., on when not using them. The beauty of the Tobogan for such a purpose will be evident to any one, when you think of the way it can be pulled, laden, over cañoes and ditches, over lumps and stumps, and—unlike any other kind of sleigh—without upsetting.

The Tobogan is drawn by a line fastened to the bow, and is steered down a hill by the pilot, who sits at the stern, using his hands, or what is much better and more pleasant, two conical sticks about a foot long, one for each side. You grasp a stick firmly in each hand—sitting tailor style—if you want your sleigh to go to the right, press or drag the stick in your right hand along the ground, and *vice versa*. It requires a little practice to steer a Tobogan properly, and I've seen many amateurs who thought it was an easy thing, send their sleighs hump up against some fence or into some snow-drift, which is fun, if you are going as fast as a good Tobogan on a good hill will generally go. The novice finds he can't keep his sleigh from wiggling this way or that way, or taking frantic spins to the "right-about, three-quarters face," as our drill sergeant used to say when we were learning our facings, and sending the occupants of the Tobogan highly into graceful attitudes, making them perform a series of gymnastics utterly incomprehensible. So, my friend, if you ever act as a pilot on a Tobogan, observe the *medio tutissimuss ibis* (steer a middle course); keep your sled well in the centre of the road, don't be trying experiments of swerving or wriggling your sled—unless you'r alone—and when you have to turn to one side or the other do it gradually. If you ever hope to pilot the ladies, please learn to guide yourself first, and then never dare to make your appearance on the hill without some one or more of our Canadian lassies, who are the best girls in the world. If you have ever seen any amateur pilot on a Tobogan, you have doubtless seen an upset. When the sleigh once gets well started, it is almost impossible for him to stop it till it gets to the bottom of the hill, unless he upsets or rolls off. The latter is very jolly at any time; it causes such a delightful jumble of male and female, coats and crinolines, squalls and squeals. Bye the bye, if ever any of your lady Toboganists wear those horrid "clouds," or veils, or masks, or whatever you call them, that hide their faces from tantalized Young Canada, beseech them to tear up the speckled