

ST. JOHN, N. B., SATURDAY, OCTOBER 21, 1899.

AN IMPORTANT DISCOVERY Which Reduces the Great Danger of Navigation In a Dense Fog.

The Bay of Fundy has borne an unenviable reputation for so long a time because fog frequently interferes with safe navigation, that the following article descriptive of the use of the megaphone on the fog bound Atlantic coast should prove of great interest to those who navigate the bay and who are interested in the safety of ships and life when approaching St. John. The article is written from Guilford, Conn., and is as follows: At the Government lighthouse station on Falkner's Island, which is directly off this coast, there has just been erected the largest megaphone in the world. It is seventeen feet long and seven feet in diameter at the mouth. It stands upon a circular platform twenty-eight feet in diameter, upon which it revolves. The plan is to direct it toward the eight principal points of the compass, one after the other in regular rotation, and by means of a different signal sent in each of these eight directions to tell any vessel which may be in the line of the axis of the instrument during a fog the exact position of the signal station with relation to the ship. The great difficulty with sound signals as aids to navigation in a fog is that they cannot be located with any accuracy. Cases are on record in which two officers standing on the bridge of the same steamer have differed as much as 90 degrees in their estimate of the direction of a fog whistle which was distinctly heard by both of them. It is common for a vessel to be kept on its course under the impression that a certain signal is several points on the bow, when as a matter of fact it is dead ahead. If sound signals could be located in a fog, navigation would be much less dangerous. The apparatus which has just been erected at Falkner's Island and which is the invention of R. F. Foster, is intended to locate the signal station accurately. The principle upon which this instrument works is very simple in theory, yet its practicability was denied by some of the most eminent authorities on acoustics. The most striking feature of the machine is the immense megaphone, which is not intended to be spoken through, but is used as a sound director, and when an ordinary whistle or siren is blown into the small end, the sound it gives is projected in a straight line, like the rays of a searchlight. In order to illustrate its working more clearly, suppose that a searchlight were placed upon a tower and pointed first north, then east, then south and then west, and showed an entirely different colored light at each point of the compass, such as red when it pointed to the north, green when it was east, white when it was south and so forth; it would be obvious that any vessel upon which one of these rays of light would fall would know the exact direction from which that light came simply from its color. If the light falling on the vessel were red, for instance, the source of it must be directly south. The new fog signal does exactly the same thing with waves of sound that the searchlight would do with rays of light. When the huge megaphone is due north of any vessel, the ship will hear the north signal, a short, long and a short blast, and so on, with a different combination of long and short blasts for each of the eight points of the compass. The signals are fifteen seconds apart, and the apparatus makes a complete revolution in two minutes. In order to facilitate the recollection of the code, all the sounds which indicate the general direction of west begin with a short blast, and all those indicating the general direction of east begin with a long blast. The south signals are all shorter than those further north. The disputed point about this system was whether or not it would be possible to distinguish clearly between the sounds which were heard when the megaphone was pointed directly at a vessel and those which might be heard when the megaphone was pointed forty-five degrees away from it, which would be the angle of the next signal point in going round the compass. The inventor asserted that the difference would be sufficiently marked to enable any person to distinguish sounds sent directly at him from those sent forty-five degrees away from him, just as he could distinguish

certain that the signal it hears lies directly north of it, because if it did not the north signal could not be heard at all. There are many other uses to which it is proposed to put this system of signalling, such as sending messages from one part of the army to another in the field without any risk of the enemy's reading them, as they now do flag signals, because no one not in the direct line of the axis of the megaphone could hear anything. The same system can be used in signalling from one vessel to another in thick weather so as to avoid collisions. The apparatus is placed on the upper deck and revolves and blows its signals automatically to each point of the compass in turn, saying to any vessel which may be in the path of the sound, "There is a steamer north of you," or "south-east of you" or whatever the direction may be. The supplemental signal which all steamers carry is then blown as the megaphone points over the bow of the vessel, so that not only can a passing vessel determine the position of the signaler, but it will know absolutely the course which she is steering. With such an arrangement on all vessels plying on foggy coasts, the dangers of collisions would be much less. ONE BEGGAR'S RECEIPTS. Ten Dollars an Hour the Estimated Income of a Legless Man. Charity is not dead in New York. Any one with doubts on the subject would have been convinced had he seen a richly dressed woman drop a quarter into a beggar's box the other afternoon and noted the things which followed on Twenty third street. The beggar was in the middle of the block, moving slowly toward Sixth avenue. He moved on stumps only about eight inches long. There was something plaintive in the short steps he took and in the way he rested for a moment after each, like a tragedian crossing the stage. A second woman stopped and threw a dime into the wooden receptacle for coins. A third instantly followed suit. The beggar was stout and burly. His neck thick and powerful looking. It seemed pitious that so strong a man should be so crippled. A poorly dressed woman and a little girl paused long enough to pity him and add their mites to his assets. The beggar was laboriously pushing a little four wheeled cart. In it was a hand-organ which he ground unceasingly. A shabbily dressed man paused to pay a cash tribute to the beggar's misery. Sentimental strains poured from the hand organ. The time was very slow. There was nothing gay about that music. It almost drew tears from the eyes of the pedestrians. It also drew their dimes. Three prosperous-looking women opened their purses and dropped silver into the box. The organ was pushed along at the rate of twenty-four feet a minute, and the contributions fell at the rate of one in every four yards. The man with the rubber snakes, the man with the toy balloons, the man with pictures of the Dewey arch, the banana man and the vender of hot chestnuts, looked on with bulging eyes. "My! what a graft," they murmured. The organ man looked very weary, and rolled his head from side to side, as if life were indeed a burden. And the rain of money continued. The thirty-eighth contributor within eighteen minutes was a well dressed youth. Above the organ was a banner upon which was inscribed, "Ladies and gentlemen, having lost both my legs and being unable to obtain employment, I have taken this means to gain support for myself and my family, and to raise money to buy a pair of artificial feet." This appeal fairly magnetized the dimes. A cabman standing by the curb ran forward and dropped something in the box. "Poor chap," he said, "it's a hard thing to be like that." "My friend," said a bystander, "that man will make more money in half an hour than you will in a whole day." The beggar and his organ had reached Sixth avenue. He had gone 180 yards from the point at which he was first observed. It had taken him twenty five minutes. During that time no fewer than fifty nine people had dropped money into his box. Most of the contributors were handsomely dressed women. Doubtless some of them contributed quarters. It is likely that the contributions averaged 10 cents each, and if that was the case the beggar cleared up \$5.90 while going half a block; but in case some of the women put in only pennies it might be well to call it \$5 for twenty five minutes, or say \$10 an hour. "That one box you see," said a special officer, "is only one of his boxes. He has three like it, one under the other. When the money partly fills one it drops into the others. But the beggar was out of sight. He

had gone to conquer another world west of Sixth avenue. HER ILLUSTRATED ACCOUNT BOOK. One Woman's Way of Keeping a Record of the Gowns She Wears. When one has an artistic soul there are many ways in which it may find expression besides painting hangings. One clever woman gives this talent full rein in her personal account book. Not only the cost of clothing herself is therein entered, but a beautiful water-color sketch is made of every important gown that she possesses. for a long time her gowns have been greatly admired, and among her friends it is generally known that she designs them herself, and dyes much of the embroidery and bead work that gives them such a costly appearance. Often she has been heard to say: "That gown cost me just \$60; I could not have had it made at one of the importers for less than \$300." The first gown that this woman designed was the one she wore at her wedding. At this time also she began to keep her account book. She called it 'starting fresh.' It then seemed to her quite natural, along with the account of the gown, to make a sketch of it as worn by herself. Her veil and coronet of orange blossoms, her fan, bouquet, slippers, and in fact everything that she wore on that day, she accurately sketched on the page next to the one with the figure of the bride. Following comes the page of expenses, and here not the smallest item is overlooked. Just how much time was by her expended, and how often the gown was worn was also recorded. The next illustration in the book is her going-away gown. A large and beautiful muff is one of its noticeable features. It is revealed by the page of costs that it was made of two fox skins which were bought in Canada at the astonishingly low price of \$6. The lining was entered at \$2.45, and the stuffing at thirty cents. The whole cost, therefore of this confection summed up \$8.75. It was twisted into shape by the girl's own nimble fingers. Another costume entered into the book is of orange satin, and it is also recorded that it had upon it 992 spangles. For four years now the book has been faithfully kept. It has in it 120 stunning costumes. Hats, slippers of many shapes buckles and hair ornaments have within its pages all found a place. Every new piece of jewelry and lace is also most artistically represented on a square of black background up in one corner. The book is really a most interesting chronicle of the changes in fashion that have swept over us in so short a time. Should this lady ever smile upon her grandchildren, it would be to them a book of interest. Each one of the water-colors is in itself a work of art, and the gowns mark periods in history quite as well as those we see in the very expensive costume books that have come down to us from the time of Louis XIV. Although the loss of color would be considerable, it is quite feasible for those that are not artistic to carry out the scheme by the use of photographs. Much of the effect of the gowns would be preserved and the path of fashion as surely followed. The mere idea of illustration of an account book, however, is one that makes the task a pleasure. The particular account book that has been referred to is large, with pages of fine water color paper. It is handsomely bound and has inscribed upon the outside the name of its owner. In a Tornado. Few situations are so crowded with vivid experiences as those to be found in the path of a tornado. A storm moving at the rate of sixty or seventy miles an hour is soon past a given spot, but every instant of its passage seems stretched to intolerable length. A recent article in the Century recounts a series of extraordinary occurrences. Perhaps the most remarkable, not to say incredible, adventures among them were those which befell Miss Moorehouse, Mrs. Webster and her son in a Missouri tornado. "I was conscious all the time I was flying through the air," said Miss Moorehouse afterward, "and it seemed a long time. I seemed to be lifted up and whirled round and round, going up to great heights,—at one time far above the church steeples—and seemed to be carried a long distance. "I prayed to the Lord to save me, for I believed He could save me, even in the wings of a tornado; and He did wonderfully preserve my life. "As I was going through the air, being whirled about at the sport of the storm, I saw a horse soaring and rotating about

me. It was a white horse, and had a harness on. By the way it kicked and struggled as it was hurled about, I knew it was alive. I prayed God that the horse might not come in contact with me, and it did not. I was mercifully landed on the earth unharmed—saved by a miracle." Young Webster, too, saw the horse in mid-air. "At one time," he says, "it was directly over me, and I was very much afraid I should come in contact with its flying heels." After a flight of nearly a quarter of a mile, Miss Moorehouse and the two Websters were let down so gently that not one of them was seriously injured, although Mrs. Webster had slight cuts about her head, and her son had one arm fractured. It is interesting to know that the white horse also survived. Its mate was found dead near the wrecked barn in which the animals had been standing. The white horse was caught up and carried a mile through the air, and according to the accounts of reputable witnesses, was at times more than two hundred feet high, passing over a church steeple. Beyond being plastered with mud, the animal was uninjured. A Doctor's 'Call' in India. Probably every doctor has sometimes found it hard to reach his patients, but few doctors, let us hope, have to travel several hundred miles to make a 'call.' The 'record,' in this respect, seems to have been established by a young medical man in India, whose letter is printed in the Golden Penny. He says: I have just returned from a three hundred mile walk into the very heart of the Himalayas. I had to set off at a day's notice to look after a Mr. Blank of the India civil service who, was said to be lying dangerously ill at a place called Skardu. He had gone there this year to settle the revenue, and in the winter was the only white man in the country. I had sixteen days' march to get there, most of the way through snow, and all the way over the most impassable road I have yet seen. The road or rather path, lies along the Indus, and so bad is it that it is quite impossible to ride any of the way which is saying much in this country, where we ride almost anywhere a goat could go. But on every march to Skardu there are obstacles. The path winds up and down the rocky mountains on either side of the Indus; in places along narrow ledges of rock, galleries of very rickety stone and wood built out from the face of cliffs, and even up and down ladders and notched poles. One march is over a snow mountain, a climb of forty-five hundred feet, up one side and down the other. Several colliers got frost-bitten, as the cold was extreme. My water-bottle, which I carried with me, froze solid as I walked along. I had to sleep on the ground with lots of blankets, all my clothes on, two thick overcoats, fur-lined stockings and gloves. Dying for Their Country. Among all the cruelties of battle, few are more cruel than the suffering of wounded horses and mules left to die on the field. For them there are no surgeons nor nurses, and the consciousness of duty done is withheld from them. In Harper's Weekly Frederick Remington described the fate of these poor creatures at San Juan. Having reached the firing line, many officers left their horses tied to the brush on the sands of the San Juan River. Baggage and gun mules were turned loose and stood stupidly about. There was a constant tweet of bullets coming through the trees from the Spanish position. One horse caught three almost in a bunch; another one passed through him and he lay down on his side, panting desperately. A big gun mule lay on his side, gasping, and another horse sat down like a dog, giving every evidence of great pain. A ball cut the skin of a mule's knee, but he only stamped, as if to get rid of a fly. The strange thing about it was that the horses which were untouched seemed sleepy. They gave no evidence of excitement except a slight pricking of ears toward the hill. One almost wondered if they suspected that things were not right. Even the blood from horses and men, which was all about the sands, did not have its usual effect of scaring them. Why do the horses die for their country? They do not have a previous intention of so doing. The act is not voluntary—well, possibly. Neither does a conscript die voluntarily, but it is for the country, just the same. A mule does more work for the country, and has more suffering, than a man. But why speak of these things? It is sufficient to know that all soldiers respect and honor all mules.

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