

**AN ICE VELOCIPEDE.**

The accompanying illustration shows the general features of an ice velocipede, constructed on the principle of a bicycle, and adapted to be propelled on ice or snow. It has been patented by Mr. James Edward Leahan, of 92 High Street, Boston, Mass. The steering post is extended down adjacent to the ground, and terminates in a skate, and it is provided with a brake, which is bifurcated at its lower end, and is slidably adjusted on said steering post. By means of a brake lever mounted on the handle bar, the forked end can be pressed against the ice, on each side of the skate. The rim of the driving wheel is provided with a flat tire, fastened to the rim by means of bolts, which have pointed heads projecting on the periphery of the tire, which bite the snow or ice when the wheel is in operation.

The top bar of the frame is extended to the rear, where it is provided with a downwardly projecting hollow bar, in which a supporting bar is arranged to slide vertically. To the lower end of the supporting bar is fixed a rear skate, and the upper end of the bar is toothed to mesh with a circular rack, which is keyed on the end of a horizontal shaft carried below the top bar of the frame. At the forward end of this shaft is keyed a gear wheel meshing with a segment rack, which is operated by a hand lever conveniently pivoted in front of the saddle and upon the top bar. By operating this lever it will be seen that the rear supporting bar may be raised or lowered as desired. In its normal position the rear skate will be adjusted so that the driving wheel will touch the ice sufficiently for the spiked parts of the wheel to take hold of it; and when it is desired to "coast," the rear skate will be forced down and the driving wheel lifted clear of the ice or snow.

**THE VICTORIA BRIDGE DISASTER.**

We present an engraving made from a photograph of the Point Ellice bridge disaster at Victoria, British Columbia. On the afternoon of May 26 a defective span in the Government Street bridge across Victoria Arm gave way, precipitating a loaded street car and several carriages into the bay, a hundred feet below. The bridge was crowded with vehicles containing people who were going to Macauley's Point, where the Queen's birthday celebration sports were in progress. The car had upward of 100 persons on board. When the middle span of the bridge was reached it collapsed, throwing the carriages, the car and some foot passengers into the water beneath. The car was completely submerged, many of those in the inside being drowned. Others were injured by falling timbers. Nearly 200 persons went down with the span. Owing to the holiday, nearly all the craft were away on excursions, so that boats were hard to procure. Steam and naphtha launches were hurried to the scene, and the boats of

A large number of people were injured. The bridge was originally built for wagon traffic, and was evidently not strong enough for the electric car service. The span which broke was 150 feet in length. The water at this point of the branch of Puget Sound is 20 feet deep. The car was finally hauled to the shore, and it was found that it had turned clear over in its fall. This is, without doubt, the worst accident in the history



LEAHAN'S ICE VELOCIPEDE.

of street railroads. The view shown in our engraving is from a photograph taken by S. J. Thompson, New Brunswick, B. C.

**Vitality of Plants in Severe Cold.**

"In the polar regions and at great heights," says Der Stein der Weisen, "some plants can endure a very low temperature; at a continuous temperature of  $-50^{\circ}$  C. [ $-58^{\circ}$  F.] are found a large number of cryptogams, fungi, mosses, lichens, and even some conifers, such as pines and junipers. These plants lead at best a sort of latent life, as they neither respire nor assimilate. Now Jumelle, who has undertaken investigations on the subject, has found that this suspension of vital functions proceeds not directly from the influence of the cold, but from the drying of the plants, and he has tried the effect of cold on cryptogams and conifers that were not dried. He subjected with this intent lichens soaked in water and freshly cut branches of pine to temperatures of  $-30^{\circ}$  to  $-40^{\circ}$  C. [ $-22^{\circ}$  to  $-40^{\circ}$  F.] and investigated the emission of gas both in light and in darkness. In earlier researches it had already been shown that plants below zero [ $32^{\circ}$  F.] ceased to respire,

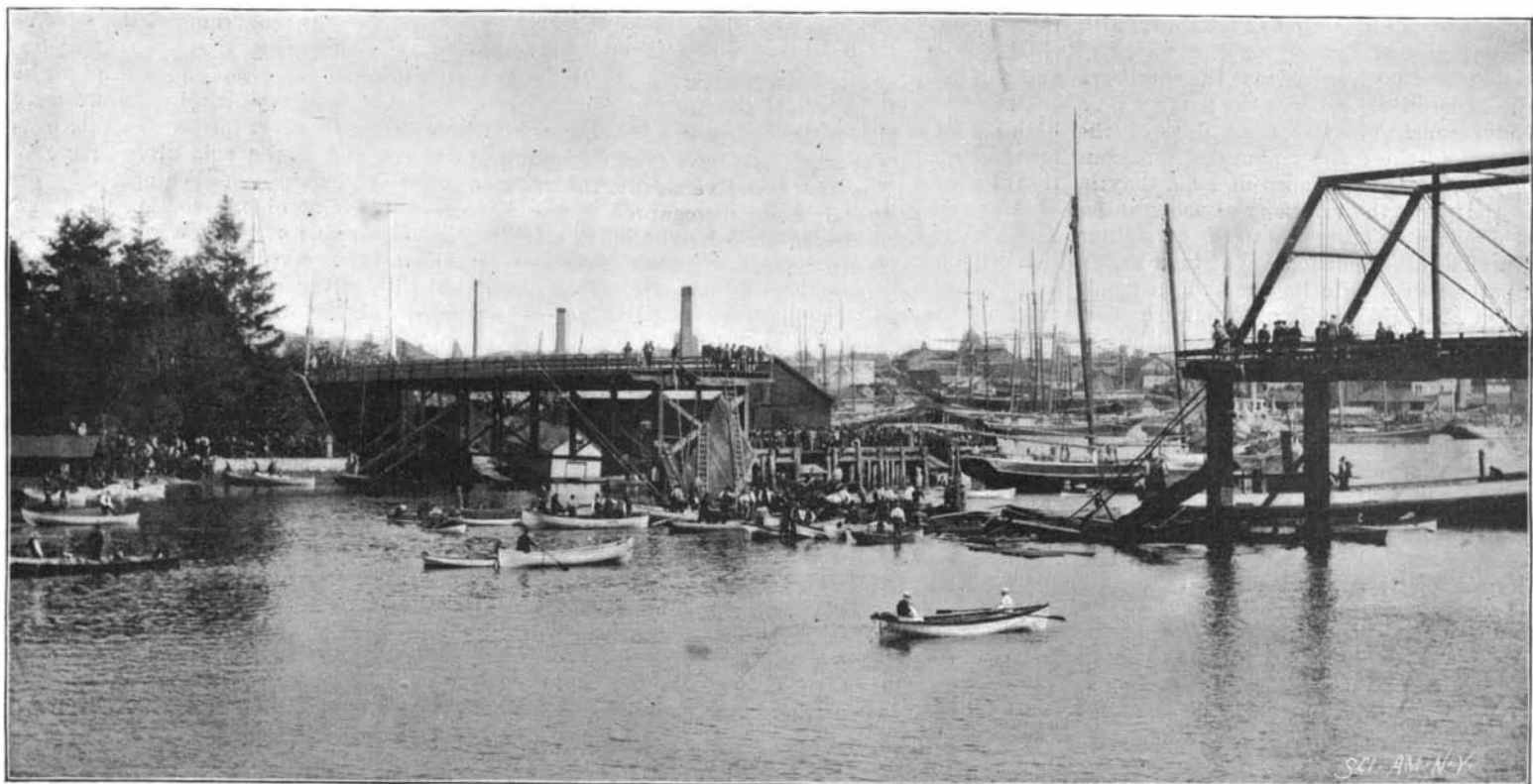
lichen assimilate carbon from the atmosphere in the light, when the temperature had sunk to  $-35^{\circ}$  [ $-31^{\circ}$  F.] and even to  $-40^{\circ}$  [ $-40^{\circ}$  F.]"—Literary Digest.

**Vessel Damaged by a Whale.**

A strange incident lately occurred in Australian waters. The brigantine Handa Isler arrived at Sydney Harbor from New Zealand, presenting the appearance of having been struck by a heavy sea, as she was much damaged amidships. The vessel had made a fair voyage from Mercury Bay, New Zealand, with a cargo of timber, up to within ten days of Sydney. Two large whales were sighted, each being about 60 feet in length. At first they appeared to be heading across the ship's bows, but they suddenly slewed round and came broadside on to the ship at a tremendous speed. The first whale struck the ship amidships and, although the vessel is 260 tons register and was laden with nearly a million feet of timber, the concussion was so great that the vessel shook from stem to stern. The second whale, fortunately, did not ram the ship, but dived just before reaching the Handa Isler, and passed under the keel. The brigantine was badly damaged by the collision, and the whale must have been terribly injured, as the sea around was speedily dyed with its blood, and the animal did not rise after striking the vessel. The well of the ship was at once sounded, and it was discovered that the water was making at the rate of a foot an hour, which, in a vessel so deeply laden, was a very serious matter, Sydney being 220 miles distant. Examination showed that there was a large dent in the side where the whale's head had butted in the planking and framework. As the water gained on the pumps, the deck cargo was jettisoned, but continuous pumping enabled the crew to finally get the vessel clear. On the next day, the weather being very favorable, a pad composed of green hides, in which pillows had been sewn, was fastened over the dent in the timbers. The inrush of water was then checked, says the Leisure Hour, and the vessel was also enabled to weather the severe gales which followed, and to reach Sydney Harbor in safety.

**Origin of the Loving Cup.**

The origin of the loving cup is given in this tradition: As King Henry V, of England, was riding through the forest one day he chanced to come upon a wayside inn, and, being thirsty, called for a drink. A serving maid appeared at the door with a cup of wine which she handed awkwardly to the royal visitor by the single handle, and the king was forced to take it in both his hands, thereby soiling his gloves. When he returned home he determined that such a mishap should not occur again; so he ordered a suitable mug to be made with two handles, which he sent to the inn with instructions that it was to be filled for him when he next called. Happening soon after to be in the



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the warships were active in the work. Scores of people were found floating in the debris, and many were drowned before a rescue could be effected. The sad affair cast a deep gloom over the city and the naval review and sham battle were at once canceled. Thousands of people crowded around the approaches of the bridge, eagerly scanning each of the sixty-three bodies, on the lookout for friends.

and Jumelle could not find the least evidence of carbonic acid in the atmosphere under  $-10^{\circ}$ . He now confined himself to researches on assimilation. The result was that in the case of the plants that were able to withstand when moist the most intense cold, the decomposition of carbonic acid went on long after respiration had ceased. It was in particular established that the pines, the junipers, and one species of

neighborhood, he stopped at the inn and called for a drink. What was his chagrin when the same maid appeared grasping in her hands the two handles of the mug, and a second time he was compelled to receive it in this awkward fashion. The next year he ordered another mug to be made for him with three handles, which proved a successful solution of the problem. Thus is said to have originated the loving cup.