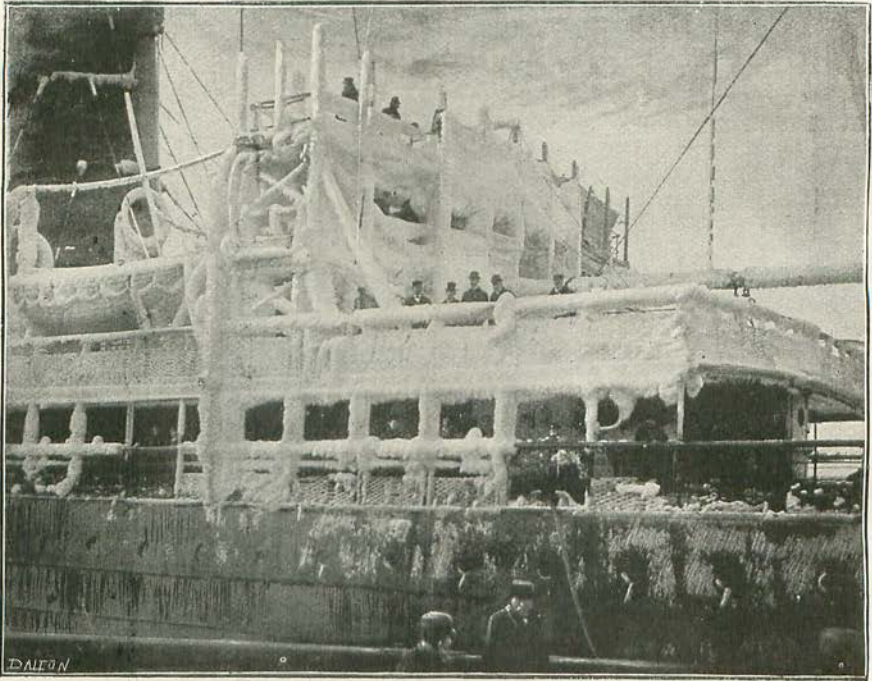


## Freaks of Frost.

BY JEREMY BROOME.



1.—R.M.S. "UMBRIA," AT CUNARD WHARF, NEW YORK, FEBRUARY 10, 1895.  
From a Photo. sent by the Cunard Steamship Company, Limited.

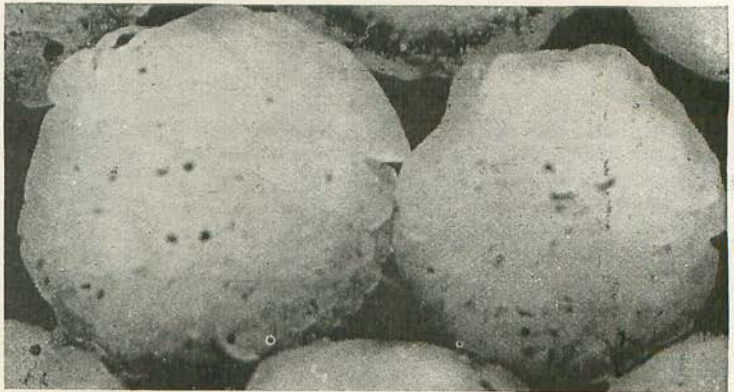


HE Ice King is a freakish giant, and his works are marvellous and strange. But amongst all his wonders, he never did a stranger or more beautiful thing than when, by a whiff of his breath, in a single night, he turned the big black body of an ocean steamship into a floating fairy-land of ice.

The incident occurred in February, 1895. The great Cunard steamship *Umbria* was nearing the port of New York, when she was welcomed by an icy hand, and washed with tons of spray. The next day she steamed majestically up the ice-coated harbour, her shrouds encrusted with sparkling frost, her bridge an arch of marble, and her decks covered with a cloth of fairest white. Soon after she was moored to her dock, a photo-

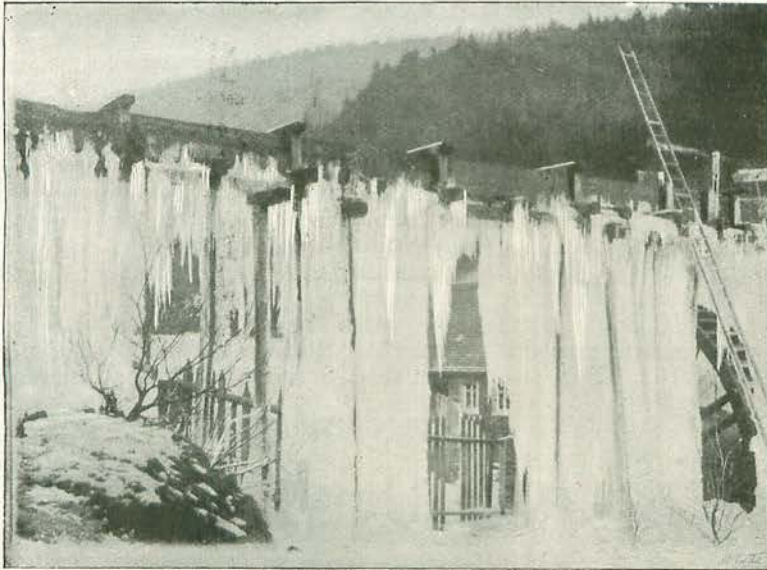
graph (1), which we reproduce, was taken. It shows part of the ice-formation, but it gives little idea of what, in the night, must have been a fair white ghost.

The journalism that has grown up around hailstones and hail-effects is something wonderful to read, but notwithstanding the amount of information that has been spread abroad by scientific papers and popular weeklies, the photographs are few and far



2.—PIG HAILSTONES, AFTER THUNDERSTORM AT RICHMOND AND HARRGATE, YORKSHIRE,  
JULY, 1893.  
From a Photo. by H. J. Metcalfe, Richmond, Yorks.





3.—ICICLES ON A FROZEN DAM IN THE BLACK FOREST.  
From a Photograph.

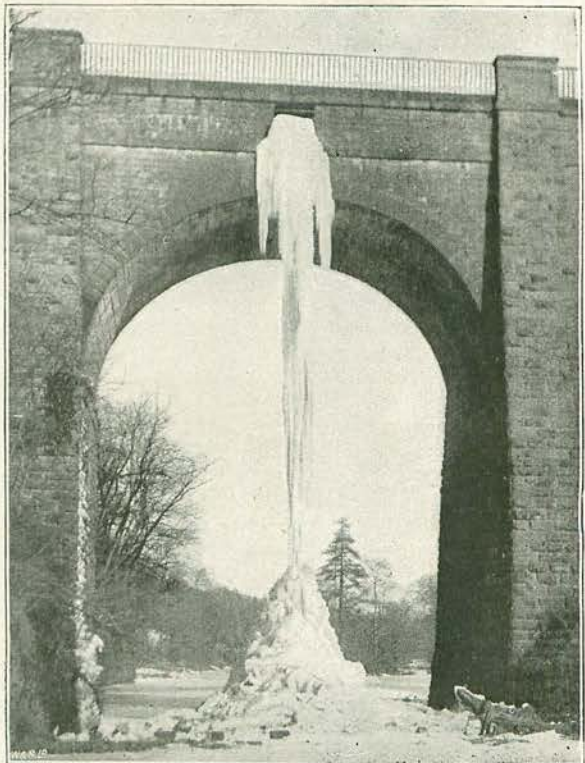
the impression of a vast field or sheet of ice suspended in the atmosphere, and suddenly broken into fragments about the size of the palm of the hand. During the progress of the tornado at Long Creek a piano was taken up and carried about a hundred yards."

Gopher-turtles, grand pianos, and such-like playthings of hailstorms might appear Munchausenish if the reports from the United States were not strengthened by

between. The most remarkable of the few is probably the one reproduced herewith (2)—which we have already used in *The Picture Magazine*. The largest of these stones—and they are reproduced actual size—measures 2in. in diameter, and they fell in a terrific thunderstorm at Richmond and Harrogate, Yorkshire, on July 8th, 1893.

In the United States, where hail is more frequent than in England, the stones are often enormous, and the nuclei sometimes of surprising formation. A report clipped from the *Monthly Weather Review* of Washington, and specially sent to us by Professor Cleveland Abbe, the great meteorologist, tells of a storm that took place at Vicksburg, May 11th, 1894. One remarkably large stone had a solid nucleus consisting of a piece of alabaster, from ½in. to ¾in.; and in the same storm a gopher-turtle, 6in. by 8in., entirely incased in ice, fell with the hail. In another storm at Portland, Oregon, the hail formation was more in the nature of sheets of ice than simple hailstones. The observer who reported the storm adds, in his letter: "The sheets of ice averaged 3in. to 4in. square, and from ¾in. to 1½in. in thickness. They had a smooth surface, and in falling gave

most wonderful stories from the East. After a storm in the Narrabri district, for instance,



4.—THE BROXBURN ICICLE, SAID TO BE THE LONGEST ON RECORD,  
FORMED IN 1805.

From a Photo. by J. McLaren, Broxburn, N.B.



stones were found  $6\frac{1}{2}$  in. in circumference, and the next morning it was discovered that nineteen sheep had been killed, also birds, kangaroo-rats, and other poor animals.

At Peshawur, in 1893, the hail was warm and tasted like sugar, so that the outpouring of Nature resulted in a grand pic-nic for the native children with sweet teeth.

We were on the point of adding a few facts about a bricklayer in Cleveland, Ohio, on May 17th, 1894, who was struck on the head by a hailstone, which shot through his straw hat into his scalp, and laid him up at the hospital. But we remembered in time that we had not touched upon icicles. Now, it is

an absolute truth that there are as many "biggest icicles on record" as there are hairs on a man's head, or faults in the other party. The denizens of the Black Forest thought that the icicles on the frozen dam here reproduced (3) were pretty enormous, considering that they almost hid a big house from view. But so far as we have been able to discover, the celebrated Broxburn icicle (4) fully deserves the name of "biggest." It was formed during the severe frost of February, 1895, at the Almond Aqueduct, over which the Union Canal runs near Clifton Hall, Broxburn. The over-flow of the canal drops from the aqueduct, a distance of



From a Photo. by]

5.—PART OF AN ICICLE AT NIAGARA FALLS.

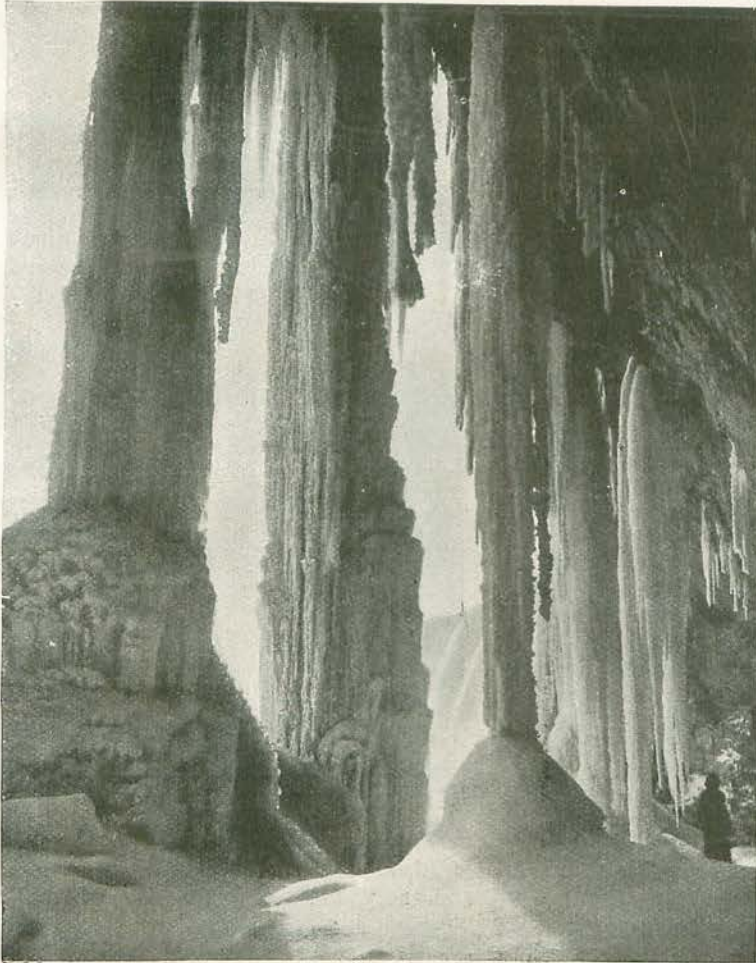
[T. Zybach, Niagara Falls

about 120ft. into the Almond water. During the heavy cold the dropping liquid, freezing at the spot where it fell, soon became a gradually lengthening icicle, until the connection between the river and bridge was established. When the sun shone upon the giant mass, the iridescence was beautiful, and people came from miles around to look at it. The icicle was formed



7.—BIG HONG KONG ICICLES ON A GARDEN SEAT.

*From a Photo. taken during the Great Frost, 1893. Lent by the Royal Meteorological Society.*



6.—LITTLE NIAGARA ICICLES IN FRONT OF THE FALLS,  
*From a Photo. by T. Zylbuch, Niagara Falls.*

in three nights. Icicles prove that different people look at things in different ways. The next three pictures represent ice effects at Niagara Falls and Hong Kong. As everyone knows, icicles at Niagara are as common as potatoes; whereas in Southern China, an icicle two or three feet long would make the oldest inhabitant reminisce for his remaining years. It is impossible for us to estimate the length of the Niagara icicle (5), but when we remember that the Falls themselves, shown in the background, are at least 160ft. high, we may assume that the serrated bar of ice in the foreground is, at least, 100ft. in its full length. In these Niagara icicles, moreover, it is absolutely impossible to get an idea of their grandeur unless,





8.—TREE AT LINCOLN COVERED WITH ICE THROUGH FREEZING OF WATER FROM A BURST PIPE.

From a Photo. by Canon W. W. Fowler, Lincoln. Lent by the Royal Meteorological Society.

like the lady in our second Niagara view (6), one stands beside them at the base and looks upward. They seem like a huge, scintillating, fairy-carved curtain hanging in front of a massive cave.

Compare with this Niagara picture the



9.—FOUNTAIN IN ALBERT SQUARE, DUNDEE, WINTER OF 1881.  
From a Photo. by J. Valentine, Dundee.

fringe of icicles on the wooden seat in the foreground of our Hong Kong picture (7). This truly wonderful effect in a region where the average temperature is 75deg. Fahr., was a result of a severe frost in January, 1893. The photograph has been lent to us by the Royal Meteorological Society. The people of Hong Kong are accustomed to see ice upon the distant mountain peaks, but to see it on an every-day settee is abnormal. The building in the background was covered with a glistening coat of rime, the verdure in the district was blasted, the rigging



10.—SECOND FALL IN FOSS GILL, BISHOPDALE, YORKSHIRE,  
40FT. HIGH.

Photo. by Rev. F. W. Storr, M.A. Lent by the Royal Meteorological Society.

of ships in the harbour was a network of ice, and the Chinese were compelled to put on more clothes. To them the weather was Arctic, but an Eskimo would have dropped down from the heat.





11.—ICE-SHOVE, COMMISSIONER STREET, MONTREAL.  
From a Photo. by W. Notman & Son, Montreal.

To a householder a burst pipe is a cause of execration, but to an admirer of the beautiful often a cause of supreme delight. What could be more striking, for example, than the following ice-effect (8): the lithe branches of the little trees drooping beneath their heavy burden of white, the wire-like icicles melting into tears? Yet it was all due to a leak in a common pipe and a jet of water that shot out upon the neighbouring bush, freezing as it fell. The photograph was taken in February, 1895, by Canon W. W. Fowler, of Lincoln, and was lent to us by the Royal Meteorological Society.

A beautiful photograph of a fountain clothed in icy raiment has come to us from Dundee (9). The fountain stands in Albert Square, and the ice resting upon it in 1881 was esti-

ings of the man in the picture, can be colder. This photograph (10) represents the second from the bottom of the seven falls in the River Ure, at Bishopdale, in the North Riding of Yorkshire. The stream descends very rapidly for 700ft., and this particular fall, against which the man is resting, is 40ft. high. The photograph was taken by Rev. F. W. Stow, M.A.



12.—UNION AVENUE, MONTREAL, MARCH, 1895.  
From a Photo. by W. Notman & Son, Montreal.

mated to weigh several tons. The water, trickling from the top, dropped upon the tiers of ice which we may note in the reproduction, and gave to the fountain the appearance of a dancing waterfall. For several days the enormous mass clung to its iron frame, then melted in the sun and disappeared.

Nothing can be more picturesque than a natural water-fall completely frozen, and nothing, if we may imagine the feel-





13.—AFTER THE GREAT BLIZZARD, NEW YORK CITY, MARCH 12, 1888.  
From a Photo. by Langill and Darling. Lent by the Royal Meteorological Society.

It may be noted that several of the English photographs used in this article were taken during the great frost of January and February, 1895. That frost was exceedingly intense. Windermere was covered with ice; the Serpentine was open to skaters for thirteen days, the ice being  $7\frac{1}{2}$  in. thick on February 19th and 20th; a coach-and-six was driven over the Cherwell; pipes burst all through the kingdom, and rabbits, hares, deer, seagulls, and flowers succumbed to the cold.

Compare with the Hong Kong photograph the following views of Montreal, in Canada, where, it is said, the people build palaces of ice, and then eat them up. Imagine a Chinaman who had never before been away from Hong Kong and its tiny icicles, standing in front of the "ice-shove" on Commissioner Street (11). The jagged blocks massed up against the side of the street, as if they were going to topple over into the roadway, would stir his heart as the Atlantic Ocean would stir the emotions of a Mississippi Indian. Yet, in Montreal, the "ice-shove" is no uncommon sight, and there is also a big supply of snow and no place to put it. The electric

snow-ploughs, running continually through the streets during a storm, try almost in vain to get rid of the snow, and go back to the stables at night covered with ice. Both time and money are spent in cleaning the pavements or "side-walks" for pedestrians. The snow, as shown in our photograph (12), is massed along the streets like mountains of ice-cream. The two photographs which we reproduce show plainly how fond

the Ice King is of pretty Montreal.

In the early part of 1888, the City of New York was visited by a most destructive



14.—VIEW IN PROSPECT PARK, NIAGARA FALLS.  
From a Photo. by T. Zylbach, Niagara Falls.





15.—THE OSTRICH PLUME—THICK RIME ON TREES AT LINCOLN, JANUARY 7, 1889.  
From a Photo. by G. Hadley, Lincoln. Lent by the Royal Meteorological Society.

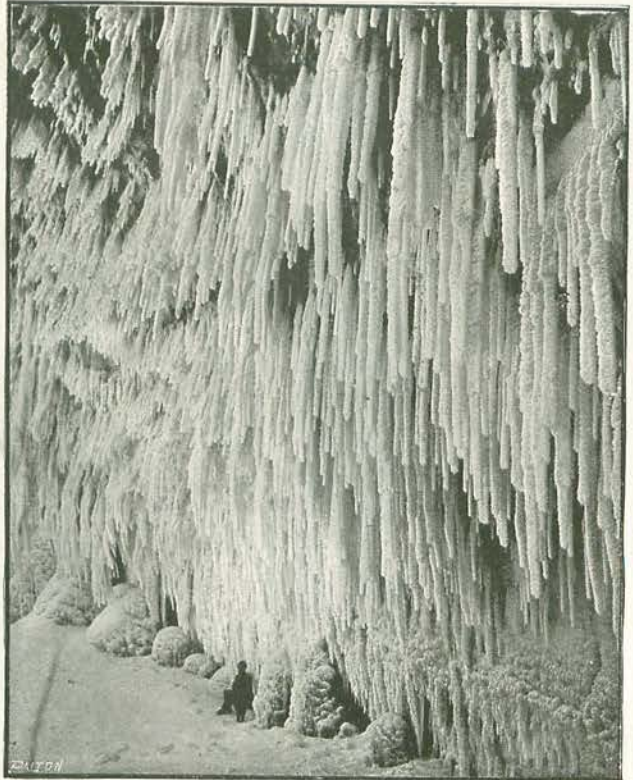
arch, in Prospect Park, Niagara, has turned into an arch fit for an emperor to ride under, the thick-laden trees rising triumphantly behind. In the next picture (15) an ordinary tree is turned into a magnificent ostrich feather, bending gracefully toward the ground.

Many people will consider (16) to be the most striking photograph in this article. Certainly, the effect of the myriad icicles, clustered together like straw in a thatched roof, or like wisps on the

blizzard, in which tram-cars got lost, telegraph-poles fell into loving embrace, and fur coats rose to a premium. All communication between the city and the rest of the world was lost except by Commercial Cable to London, whence messages were "wired" back to the United States. Our photograph (13) gives but a dim idea of the dire destruction wrought by King Blizzard, who is cousin-german to the Ice Monarch; but in it we see the ice and snow 12ft. or 14ft. high along the street, and at the foot of the toppling lamp-post a mass of tangled wire from dismantled telegraph-poles.

We now turn to a few photographs which, like all beauties of Nature, speak for themselves. As all know who have lived in countries where snow is common, the most marvellous effects are sometimes seen upon the crudest things. Brick chimneys change to marble towers, faded lawns to diamond-coated carpets of the softest pile, and forests to fairyland. In the accompanying picture (14), a common wooden

Vol xii.—94.



16.—AN ICE-THATCH—ICICLES AT NIAGARA FALLS.  
From a Photo. by T. Zylbach, Niagara Falls





17.—THE HECHT BROS. FIRE, FEDERAL STREET, BOSTON, 1893.  
From a Photo. by the Soule Photo. Co., Boston.

top of a hayrick, is beautiful. The immensity of this icy wall may be estimated from the size of the peaceful-looking man seated at its base. Yet at Niagara it is but one of many beauties which bountiful Nature lavishes upon man each year.

Lastly come the photographs in which the Fire and Ice Kings meet. No one who has ever seen a warehouse burning in the dead of a winter night can ever forget the indescribable beauty of the burnt walls when the water from the engines has frozen upon them. Some years ago in Boston, U.S.A., a large warehouse—the Hecht building on Federal Street—was changed in one night from a burning skeleton to

Boston firemen had to wait for their steamer to thaw before they could take it away.

a glittering ice-palace (17). The windows were fringed with ice, the broken telegraph wires drooped along the front like necklaces of pearl, and the charred interiors were adorned with icicles like stalactites in a cave. In front of the ruined building stood a fire-engine (18) clothed in ice. Not even the tremendous heat of the boiler could prevent the front of the carriage from freezing. The hose leading to the hydrant was like a white-skinned snake, and the



From a

18.—AFTER THE HECHT BROS.' FIRE AT BOSTON.

[Photograph.