

Years have passed; the doctor's step is not quite so firm as of old, and some silver hairs have found their way among Lucy's shining braids. But Robbie, or the young doctor, as they call him now, is the comfort of his uncle's declining years, and the very pride and joy of Aunt Lucy's heart.

CURIOSITIES OF ICE.

In 1850 Mr. Faraday discovered that two pieces of ice placed in contact froze together almost instantly. Mr. Tyndall says: "One hot summer day I entered a shop on the Strand: on the window fragments of ice were lying in a basin. The tradesman gave me permission to take the pieces of ice in my own hand; holding the first piece, I attached all the other pieces in the basin to it. The thermometer was then above sixty degrees, and yet all the pieces were frozen together." In this way Mr. Tyndall formed a chain of ice. This experiment may be made even in hot water. Throw two pieces of ice in a pail full of almost boiling water, keep them in contact and they will freeze together despite the high temperature. Mr. Faraday made another experiment of the same sort. He threw into a vessel full of water several small pieces of ice. They floated on the surface of the water. The moment one piece touched another there was an instantaneous refreezing. Attraction soon brought all the pieces in contact, so that in an instant an ice-chain was formed.

An ice wheel turning on a surface of ice refreezes at the point of contact; during the rotation a series of cracks are heard which show the ear that successive refreezings are constantly taking place. The phenomenon of refreezing is easily explained. At the surface of a piece of ice the atoms, which are no longer in equilibrium on the outside, tend to leave their neighbors, as happens in boiling or evaporation. Melting ensues. But if two pieces of ice are brought together the atoms on the surface are restored to their equilibrium, the attractive action becomes what it was, the atoms resume their relations with their neighbors and juxtaposition ensues. In consequence of this property ice is endowed with singular plasticity. A rope and a knot or a buckle may be made of ice. It may be moulded. The school-boy who fills his hands with snow and compresses it into a ball, produces the phenomenon of refreezing, and forms an ice-ball sufficiently hard to prove a dangerous projectile.

This explains the extraordinary rigidity of the bridges of snow which are often seen in the Alps suspended over deep crevasses. The Alpine guides, by cautiously walking on these snowy masses, freeze the particles together and transform the snow into ice. If snow be compressed in moulds, ice statuettes may be obtained. Fill a hollow ball with snow, pressed

in as hard as possible, and you may obtain ice-balls admirably translucent. Nothing would be easier than to dine with a service made of moulded snow—plates, glasses, decanters, all of snow. A gentleman in Paris recently served sherry wine to his friends before a hot fire in beakers made of snow. Snow compressed in this way does not melt so rapidly as might be thought. Ice requires a great deal of heat before it melts. A layer of ice often becomes a protection against cold. If you would prevent anything from sinking to a temperature below thirty-two degrees during the very severest frosts, we know you have but to wrap it in wet rags. The process of freezing gives to the environing bodies all the heat necessary to destroy it. The water in the rags slowly forms small pieces of ice on the rag, and in the meantime disengages heat, which warms the object wrapped in the rags.

A tree wrapped in rags, or in moss saturated with water, does not freeze even when the thermometer is several degrees below the freezing point. The slowness with which ice melts is well known. During the winter of 1740, the Czar built at St. Petersburg a magnificent palace of ice, which lasted several years. Since then cannons have been made of ice, and they have been loaded with balls and fired. They were fired ten times without bursting. It is consequently indisputable that ice melts slowly, and may be turned to good account in the polar regions. In Siberia the windows have panes of ice. The remarkable property with which particles of ice are endowed of moulding themselves into different shapes by refreezing easily explains how glaciers make their way through narrow gorges and expand in valleys. The ice is broken into fragments which refreeze whenever they touch.

FAREWELL.

Oh, fare thee well! for many a day,
Thy kiss shall burn upon my cheek;
The words of love I could not stay,
Whispered in accents low and meek—
Of thy fond heart they sweetly tell,
And make less sad our last farewell.
Our last farewell! oh, ne'er again,
May I, beloved one, fly to thee,
To share my joy, to soothe my pain,
With tearful, exquisite sympathy;
But ever sad, and ever lone,
I shall be, love, when thou art gone.
Our last farewell! oh, never more
I'll meet thee, love, at setting sun;
Nor roam beside thee, as of yore,
In the still hour when day is done;
Nor sit beneath the ivy shower,
That wreathes around our summer bower.
Oh, fare thee well! if earnest prayer,
Grief from thy path may chase away,
Thy willing off'ring I'll prepare,
At fall of eve, at break of day—
Accept, O Lord, in heaven above,
Affection's prayer, for Thou art love.