

BOYS & GIRLS' COLUMN'S

Adventures of a Drop of Water.

H. K. STUART.

I was born a great many years ago—so many that I can hardly tell how old I am; but I was born in the world before the green fields and the trees and the flowers which you see had any existence. I am one of a very numerous family, and have generally lived in company with many of my brothers, but sometimes, too, I have lived alone. We are a very industrious family, never being for a moment idle, and we have lived singly or in company, as the nature of our work for the time might call for. I have been in every part of the world, and have lent a hand in almost everything done in it, so that the history of my life would be almost equal to a history

filled, and the magnitude of our work increased. A story (which I hope you have all read) is told of a prince, who by putting on a little red cap, became invisible, and he had then only to wish himself in any part of the world, to be there immediately. By joining hands with a sunbeam, I have often had the experience of the prince, at least so far as to be invisible. We had only to obey certain laws by which we were governed, to be at any place desired in a very short time. I have floated for days, or even weeks at a time through the air, generally making a visit to the earth at night, when I assumed a visible form and was called dew. On those visits my work was to refresh the tired and thirsty plants with which the earth became covered, and so help them to grow. In the morning I would rise on invisible wings, and floating again through the air, descend to repeat the same work on the return of night. At other times we would descend

and next time you see the snow coming down quietly, in large feathery flakes (for it is then that the stars are most perfectly formed), catch a few on a dark woolen cloth and look at them through a magnifying glass; quite a common, cheap one will do. You will see the most beautiful six-rayed stars you can possibly imagine. You will find them in more forms than you are likely to count, but with all the variety, they are all alike in this, that they are six rayed, and that each little projecting spear on the rays is set at an angle of sixty degrees from its neighbor. Perhaps you may think such beauty was only made to be looked at and admired, but in this form our special work is to keep the earth warm, to robe the flowers and grass and plants of every kind in a warm covering and keep them from the winter's cold. Our special work, I said—for near to us in our form of snowflakes lies yet another transformation, on undergoing which



THE DROP OF WATER HELPS TO FORM AN ICEBERG.

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of the world. But I am much better accustomed to doing than telling of things done, and moreover, a full record of my life would occupy not only a volume, but a library, so I shall at present mention only a few of the wonderful things that have happened to me, or in which I have at various times borne a part. One of the first works in which our family was engaged, was moulding the form of this world of ours—its continents and islands, mountain ranges, valleys and the like. In this work we had several powerful allies, chief among which was the sunlight. Indeed, in almost every enterprise in which we engaged, sunlight, as a powerful helper, went with us hand in hand.

This work of land-building occupied us for a long time, and in its performance we had many curious experiences. We had to quarry materials from the solid rocks, over which we flowed, and transport them to other regions. Our first deposits were followed by many successive ones, and as time went on, we were enabled to collect a greater variety of materials than was at first possible—so forming, in conjunction with the other forces before referred to, the different strata which underlie the surface of the earth. In these we left passages which we could traverse at will, and which we constantly re-entered in the course of our labors. Many a hill we climbed, and many a wild leap we took into depths that seemed unath-able, but never once did we alter our purpose or lose our way. We established a perfect system of communication between the most distant parts of the world, and after a time, the part now called land was raised above the ocean, as we were named collectively. Since then the forms of our activity have been greatly multi-

plied, and the magnitude of our work increased. Our work was much the same as the dew, with several added departments. We sank into the soil to the roots of the plants, and carried their food which we had gathered in the air. We penetrated between the particles of soil and opened a way for the roots to follow us in search of other kinds of food which they found in the earth. We gathered in hollows of the rocks, from which we issued as springs, and ever increasing in number as we went, became rivers, and so travelled over the surface of the earth in channels, which we alternately found and formed. Some of these rivers, such as the Mississippi and the Amazon, are very large, and their influence can scarcely be estimated on the countries through which they flow. Others are so small as to be called merely creeks—but all, large or small, are engaged in the beneficent work of watering the earth and fitting it for the dwelling place of men and animals, as well as of vegetable life. In this form too, we have done a great deal of the same kind of work of which I spoke as done by the ocean, viz., changing the form of the earth by carrying portions of it along with us, and depositing them chiefly at our journey's end, which is always the sea. From this we again rise in an invisible form to repeat our journeys around the world.

But this is not the only transformation I have undergone. By the influence of the sunbeams we were rendered invisible—if they were then in a large measure withdrawn, we were changed into myriads of the most beautiful stars. You have seen them hundreds of times, though perhaps you have never looked closely enough to know how beautiful they were. You call them snowflakes.

our duties are widely different. We can only become snowflakes by the withdrawal, in a large measure, of the sunbeams, after we have been changed into vapor—in other words, when we meet a current of air cold enough to freeze us. As vapor, we traverse the regions of the air throughout the whole world, as snow, we can fall only in latitudes where the air will congeal us. In warm countries, the air near the earth is always too much heated to do this, but as air is not nearly so good a conductor of heat as the earth, as we mount upward we often find air cold enough to change us into snow. Of course we can only remain on land which is as cold as the air, so in these countries we fall only on the tops of high mountains. There we remain until layer upon layer has fallen, and the weight of the upper ones, with the cold continued or increased, has pressed the crystals in those below into a solid mass, known by the general name of ice, but in this particular form called glaciers. Then, as more weight is added above, the mass begins to move down the mountains, very slow is its progress, but still it moves. After a time it reaches warmer air, and its lower portions begin to melt. We have again become water. Some of us now sink into the soil and nourish a luxuriant growth of plant life, some form springs and streams, and travel on to carry refreshing and beauty wherever we go, never stopping, until as before, we reach our home, the ocean. But though some of the particles composing it have been set free, the glacier still remains. Fresh snow falling on the heights renews the ice as fast as it is melted, and forms an inexhaustible reservoir from which the streams are supplied.

