

bling. The reconciliation came: with what exquisite tenderness she loved and trusted again—with what grace and delicacy accorded her generous pardon and her gentle love! Where was now the haughty actress, the injured woman? All melted into love and forgiveness!

I looked involuntarily at the prince. He held his handkerchief to his face: perhaps his heart was touched—perhaps he wept.

At last, she inhales the poison, and slowly it begins to take effect. Visible first in the tremulous tones, and the languid postures; then in the falling memory and the ghastly cheek; then in the wandering mind, the extended hands, the seeking glance, and the unseeing eye!

Could this be art?

Hark! she speaks words that are not in the part—broken, wailing words of intense agony.

There is an outcry in the royal box:

“Help! help! she is dying!”

It is the Prince de C——, losing his presence of mind with terror and conviction, stretching forth his hand—pointing wildly to the stage, regardless of king or queen, or any thing but the terrible truth of what he sees before him.

She sprang to her feet. Her face was still beautiful, but convulsed with pain, lit with unnatural excitement, vivid with the dawn of immortality. She turned that face, that look, upon him, and so stood for a few seconds; then the light faded from her eyes, her lips moved, her arms were tossed wildly above her head—she fell.

In an instant the stage was covered; gentlemen from the boxes, stalls, *parterre*, all crowded round her in consternation—and among them, myself. I pushed through the wondering throng, crying loudly that I was a physician. They made way for me: I knelt down beside her: a crimson stream was bubbling from her lips; her hands were firmly clenched, her eyes closed. She uttered no sound—a shudder passed through her frame—her heart beat no longer: all was over!

I never again beheld any of the actors in this tragedy of real life. Her father, I was told, survived his child but a few months. M. Victor entered the church, and is now an abbé and a devotee. The Prince de C—— left Paris instantly for foreign service. For myself, I am an old bachelor, striving humbly to be as useful in the world as wealth and good-will can make me. I go little into society, and never into the theatres. I have not married, and I never shall. Celeste Bertin was my first love and my last.

DOES THE DEW FALL?

THERE are few of you, we will venture to say, who have not admired the beauty of the drops of dew, as they have glistened in the bright rays of the morning sun. How light and cheerful they look, as they hang like rows of glittering pearls on the points of the grass, and along the edges of the leaves! And when you have been up thus early for a walk in the fields,

the consciousness that you have not wasted your hours in bed has contributed, together with the freshness of the morning air, to put you in excellent spirits, and to make you fit to admire the beauties of nature. You walk on with a light step and a cheerful heart, and every thing looks smiling around you; for—

“Bright every dewy hawthorn shines,
Sweet every herb is growing,
To him whose willing heart inclines
The way that he is going.”

Perhaps you have wondered where the dew can have come from, and how it is formed, and who has formed it; perhaps, too, you have thought, with the people of ancient times, that those delicate particles of dew which you see so abundant, after a fine, clear, starlight night, must have descended from the skies; though you may not, like them, imagine that they are shed upon the earth from the bright moon and stars.

It was, indeed, long believed that dew, like the rain, descended from the sky. And doubtless this belief was natural enough; for it was observed that the dew was formed in the greatest abundance when the sky was bright and cloudless; and was never formed at all unless the night was tolerably clear. Thus it became evident that there was some connection between the state of the sky and the quantity of the dew; though the nature of this connection was not understood. We can not wonder, then, that men should believe that the dew fell from the sky when no clouds were in the way to prevent it; and that they could conceive of no other way to account for the dew if they did not admit that it had come down from above. Yet this belief continued to prevail after the formation of dew had been truly explained; and, even at the present day, there are, perhaps, few people who have quite got rid of the old opinion. For this reason we will explain to you, as clearly as we can, where it is that the dew comes from.

The first experiments that were made in order to find out where the dew comes from, seemed quite to overthrow the ancient belief; but they led people into another mistake, for they appeared to prove that it ascended from the earth. It was found that, when plates of metal were placed out in the open air, and raised at some distance from the ground, their under-surfaces were alone covered with dew. In addition to this, it had been noticed that the leaves of the trees had often plenty on the under side, and little or none on the upper. So, too, when a number of plates of glass were exposed, placed at different heights above the ground, it was found that the under side of the bottom plate was covered with dew soon after the evening had set in, then the top of the same, afterward the under side of the second, and so on to the uppermost. From these experiments, it was thought that the gentle dew arose out of the earth, like the vapor which the sun's warmth causes to rise from the moist ground in the daytime; but, though these observations were all

correctly made, it was afterward proved that the opinion founded upon them was erroneous.

Before we can explain the origin of dew, you must understand that the air which surrounds us contains at all times a considerable quantity of moisture. Without this, it would be totally unfit for us to breathe; and, in hot weather, would become so burning and pestilential, that animal life could not exist. This moisture is dissolved in the air, just as salt is in the water of the sea; and is contained in it every where, but in larger quantity near the surface of the earth than higher up; because near the earth the air is denser, and is, on this account, able to contain a greater quantity of moisture.

Now, if you want a proof that the air contains moisture, you may have it very easily. Take a decanter of very cold water from a well or spring, and let it be stoppered down; when you have made sure that it is perfectly dry on the outside, carry it into a warm room, and, after it has stood upon the table a short time, you will see moisture gathering about the outside of the neck. This will go on increasingly, till the water within becomes as warm as the air in the room, and then the moisture will gradually disappear. This is nothing else than dew, artificially produced, and is occasioned by the moisture suspended in the warm air of the room being deposited upon the cold glass.

Now, it is found that the warmer the air is, the more moisture it is able to take up; so that, on a warm summer's day, when the air becomes greatly heated, and when the sun causes a large quantity of moisture to rise out of the earth, there is always much more contained in the air than there could be on a cold day. So, too, the air in a warm room occupied by people always abounds in moisture; and hence it very soon shows itself upon the cool surface of the decanter. When any circumstance causes the air to be cooled down so much that it is no longer able to contain all the moisture that was before suspended in it, that moisture must fall in the shape of water; just as the vaporous clouds become converted into rain when they meet with a cold current of air. It rests upon any cool surface that may be near.

You may easily have a very good illustration of the settling down, or the precipitation, as it is called, of a dissolved substance, when the fluid in which it is dissolved becomes less able to support it. Take, for instance, some common alum, and dissolve in a small quantity of hot water as much as it will contain; now, as the water cools it is not able to hold so much of the salt in solution; so part of it again becomes solid, and sinks to the bottom in the form of crystals. Indeed, those of you who are familiar with experiments in chemistry, will know that very often, when solutions of a salt are cooled, the whole becomes suddenly converted into a mass of beautiful crystals. It is by a process similar to this that the moisture which is dissolved in the air becomes changed into dew

on the cold ground, or on the grass, or the windows.

You well know that the warm rays of the bright sun make the ground hot in the day-time; so hot, indeed, that you can scarcely bear to put your hands upon it in the days of summer. Thus you may be sure that the sun in the day-time warms the earth very much more than it does the air, so that the moisture can never become dew upon the ground while the sun is still up in the sky. But no sooner has the sun gone down than the ground begins to cool; it sends forth heat into the air aloft, and rapidly cools down, till it becomes much colder than the air itself. This is called radiation; and the earth is said to radiate its heat into the sky.

Now, you will know, by the fact of snow lying all the year round upon the tops of high mountains, that the air is always much colder high up in the sky than it is near the earth. But the heat that is radiated from the earth warms first the lowest portion of the air, and this, thereby becoming lighter, rises, and then the cold air from above rushes down, and cools still more the earth and lower air. After the ground and the things upon it have become cooler than the air, and the lower air itself has become cooled down by the cold currents which descend from the upper regions, the dew begins to form, and is deposited upon the cold grass, and leaves, and ground.

Now, after the earth has become colder than the atmosphere above it, it naturally tends to cool the air that is close to it; and the cold currents rushing down also assist in cooling the air near the earth. Thus it is that the moisture is always formed into dew first near the ground; and then the air gradually becomes cool higher and higher up, and more and more moisture continues to settle. This explains how it was that the plates of glass we spoke of before first had dew settle upon those nearest the ground, and then the dew appeared gradually to rise and cover the higher plates; and it also explains another phenomenon, which you have very likely often observed—viz., the rising of the mist after the setting of the sun, which seems to form along the ground in the meadows, and has the appearance of rising out of the ground as it gradually forms higher up in the air, but which is no other than the moisture of the air becoming visible, and beginning to settle, as it is cooled.

We see, then, that the dew neither falls from the sky nor rises out of the ground. It descends not from the broad expanse of heaven, nor is it the offspring of the rising morn, though such has been the language of the poets. Thus Tasso sings:

"Aurora, smiling from her tranquil sphere,
O'er vale and mountain sheds forth dew and light."

Such is the charming imagery of the poet; but the plain truth is this, that the dew is derived from the moisture accumulated in the air during the day, and which the coolness of night causes to collect into those extremely minute

and beautiful drops which cling to whatever is exposed to them.

But you will very likely begin to wonder why it is that we do not always find dew upon the grass after a warm day; and how it comes to pass that there is sure to be most dew when the night is clear. The reason is, that clouds prevent the cooling down of the air. The clouds themselves radiate the heat which they receive from the earth back again to it; and thus the heat is confined within the space between them and the ground, so that the air can not be sufficiently cooled down for dew to appear. But a few clouds, or even a single one, will have the effect of preventing the escape of heat into the open sky above, and thus of lessening the amount of dew. Even the thinnest cambric handkerchief, spread near the ground, is sufficient to prevent the formation of dew on the ground beneath it; by which you will at once understand how it is that the gardener is able to protect his tender plants from the cold of night, by covering them with a thin, light matting. A strong wind, too, by keeping the air in constant motion, effectually prevents the heat from passing off, and thus diminishes the amount of dew.

It is only when the night is calm—

"When not a breath disturbs the deep serene,
And not a cloud o'ercasts the solemn scene."

that the dew appears in the greatest abundance. It is then that the heat which is radiated from the earth can be readily dispersed into the immeasured depths of space; and if the air is at the same time loaded with moisture, then every thing is covered with the glittering dew, which contributes to make the fields appear so fresh and green in the early morning.

You have no doubt observed that the dew does not lie equally on all kinds of substances. If, for instance, you have noticed how it lies upon a gate, you have always seen much less upon the iron-work—such as the screws and hinges—than upon the wood-work. There will also be much more on glass than on any metal; for it is found that bad conductors of heat have always more dew on them than good conductors. The reason of this is, that whatever prevents heat from accumulating serves to keep up the cold, and of course the colder the body, the more dew is deposited upon it. By using very delicate (that is, very fine) instruments, the grass is found to be colder at night than the garden mould, and the garden mould cooler than the firm gravel path. So, too, the surface of snow is always very cold; and that of wool or swan's-down, laid on the snow, is still colder. These soft, loose substances are therefore very good for experimenting on the quantity of dew falling; and they can easily be weighed before and after the experiment.

On a cold, frosty morning, you may see the dew formed on the inside of your bedroom windows; for the moisture contained in the warm air of the room is deposited upon the glass panes, which have been cooled by the air without. And if your window has a close shutter, there will

be the more dew, because the shutter prevents the heated air of the room from warming the inside of the panes, and thus, by keeping them cooler, allows the greater accumulation of dew.

You will now understand why it is so dangerous to be out late in the evening, and especially after midnight. Then the dew is forming, and the air is so damp and chilly, that you are almost sure to take cold; for nothing is worse than that cold chilling dampness which pervades the air when dew is forming. On a cloudy night there is far less danger; for the air is then warmer and drier, and dew is not deposited. Dew is, however, always more abundant when a clear and bright morning succeeds to a misty evening, and when dry weather follows rain; so that at such times it is not prudent to venture out until the sun begins to rise, and to warm the air with its morning beams. But at the first touch of the sun's rays, the air, warmed thereby, begins again to absorb the moisture that was forming into dew; and soon the glistening dewdrop is no longer seen upon the grass.

BERTHA'S LOVE.

IT was a pleasant evening, and I ran through the garden and along the narrow path that wound down the cliff to the beach. I held in my hand the flowers he had given me, and the soft breeze that tossed my hair over my face was laden with their perfume. I was so happy—I did not ask myself why, but a new and strange sense of blessedness was throbbing in my heart; and as I stood still and looked at the great sea stretched out before me—at the gorgeous calm of the August sunset—I felt as I had never felt since I was a little child, saying my prayers at my mother's knees.

I wandered along close to where the waves came rippling over the red pebbles. The dark rocks looked glorified in the western radiance, and the scathery clouds floated dreamily in the blue space, as if they were happy too. How strange it was that the beauty of the world had never spoken to my heart till that evening!

I climbed to my favorite seat in the recess of that great black rock which abutted on the sea even at ebb of tide, and where the fantastic peaks of brown stone rise on all sides, save where the incessant beating of the waves have worn them away. All the world was shut out, save ocean and sky; and in the vast mysterious sea heaving in the glow reflected from the heavens, I seemed to find a sympathy with the great happiness that thrilled within me. My hands clasped over the flowers—I raised my head to the still heaven, where a quiet star seemed watching me—and a thanksgiving rose from my very soul to the God who had made the world so fair, and me so happy!

Gentle thoughts arose in my mind:—I thought of my dead mother, and of the great love I had borne her, which, since she died had laid dormant in my heart—*till now!* Ah, how that heart leaped at those little words whispered to