

mosphere. The *trogide* consume the cartilage. They were found by Bañas removing the last perishable substance from the dry carcass on the skeletons of animals which had perished in the arid deserts of Tartary. The desert indeed, with its heaps of bones of men and animals bleaching in a burning sun, while it is a melancholy scene, yet exhibits to us, in a striking degree, the wonderful efficiency of the instruments which are in the hands of the Creator for the expurgation and wholesomeness of his creation. The shard-borne beetle with its drowsy hum, is the type of another class of insects which consume these excrementitious materials that might otherwise contaminate the air. In a moment a thousand shining insects will be seen busily devouring such matters, and deposition eggs for the future production of larvae which are likewise to feed upon them.

The strongest feature of our subject remain behind. It will be a surprise to most who peruse this paper, to be informed that there are *natural grave-diggers*—creatures which perform this remarkable office in obedience to a wonderful instinct which animates them. There are few of the marvels of nature that come upon us so unexpectedly as this. There are some of the tribes of the beetles the (*Ne-crophori*, or burying beetles) which perform this task, the most familiar example of which is the *N. Vespillo*. Two or more commonly engage in the work. They select a proper spot for the sepulture of the body, generally as near to it as possible. The cavity is then dug, and the animal is, by dint of unwearying labour, aid in its tomb, and covered with soil; the beetles previously depositing their ova in their carcass. But the experiments of Gladstisch, who seems first to have commemorated them, are so enchanting, and exhibit the insect to us in such an enchanting, and exhibit the insect to us in such an amusing light, that we make no apology for quoting the results from a popular work on entomology, in which they are translated. His attention was first drawn by the discovery, that the dead bodies of moles which he had observed lying in the garden beds disappeared in a very mysterious and unaccountable manner. He determined to watch the corpse stealers, and he found they were none other than the burying beetles we have mentioned. Having obtained four of them, he put some earth in a box, and covering it with a hand glass, he laid two dead frogs upon it, and left the industrious beetles to their task. Two out of the four set themselves to the interment of the frogs, while the others occupied themselves, undertaker-like, with first running round and round the dead body of the other, as if to get a correct idea of its dimensions. In the space of twelve hours one frog had altogether disappeared and the soil was laid smoothly over him. A linnet was then laid upon the earth; and this was a severer duty by far; only two undertook it a male and a female. After a little time, they quarrelled over their work, and the male drove the female away, and set to by himself. For five long hours the poor labourer continued his operation, digging a cavity close to the body of the bird. He then got out of it, and for a whole hour lay down by the bird, as if to rest. In a little time afterwards the linnet was dragged into the grave, and its body, which would only lie half in, was covered with a layer of soil, somewhat like a newly-made grave. In short, at the end of fifty days the four beetles succeeded in burying twelve carcasses: of these, four were frogs, three birds, two fish, one mole, two grasshoppers, and part of the entrails of a fish, and of the lungs of an ox.

The debris of the vegetable world, which is often as pestiferous, of not more so, than that of the animal creation, must likewise be removed; and this is the appointed task of insects. It was to be expected that these agents should exist in greatest vigour where the circumstances of the climate produces most work; and this is what we find to be the case. No sooner does a giant tree lie prostrate on the earth, than it is at once the object of attack to myriads of insects. Ants, and the boring beetle, begin the work, they are rapidly assisted from other quarters, until the mighty mass is reduced to a small heap of crumbling material, whose final destruction is accomplished by rain and weather. Travelers inform us that it is not uncommon to meet with whole villages which have been deserted by their inhabitants, having been almost swept from the face of the earth by the sole instrumentality of these insects, nothing remaining of the tenements which once formed the village. In two or three years' time there will be a thick wood grown up in its place; nor will a vestige of any structure, unless of stone, remain to indicate its former position. While, then, we can sympathise with the dolorous tales we hear about the destructive effects of the boring insects of the tropics, we should not forget that these are only minor evils compared with what would result were no such agency in operation.

Though the remainder of our subject deserves a better place than the end of a paper, it must be introduced here.

The atmosphere being the hourly recipient of impurities of every kind, from a thousand ceaseless sources, it is necessary that means should be taken to guard against its too great contamination: and such means exist. From the accumulated population of our great cities, from the tens of thousands of our furnaces, from the vast masses of rotting, nutrifying material wasteful negligence allows to collect, and from innumerable other sources, there is a mass of noxious matter cast into the air which

is completely staggering to think of. This has all to be disposed of, to be rendered innocuous, and to be returned to the earth again. The principal impurities to be dealt with are sulphuretted hydrogen, sulphurous acid, carbonaceous particles, and a medley of substances known as organic matters. Atmospheric oxygen is the grand remedy for most of them. This wonderful gas, possessed of a range of affinities equalled by few other chemical elements, attacks such impurities, and shortly reduces them to the not only innocuous, but directly beneficial compounds—ammonia and water. The decomposition is strangely progressive: it proceeds from complex to similar combinations, until the simplest has been attained, and at this point it ceases altogether. To rain and wind is assigned the task of disposing of the heavier particles, such as soot, and some of the minute molecules of animal matter above alluded to. Ammonia, the product of putrefaction, is also brought down by rain and placed at the disposal of the vegetable world. Lastly, upon the entire vegetable world itself is devolved the greatest of all nature's sanitary operations—the restitution of the oxygen to the atmosphere by the deoxidation of its carbonic acid.

Such is the impressive lesson before us; and such are some of the illustrations which enforce it. Nature has appeared to us as an instructress teaching by example: it must not be forgotten that she wields the rod as well. Man may despise her instruction; but he pays the penalty in a retributive entailment of disease and suffering.

From the Christian Treasury.

THE DYING YOUTH'S FAREWELL

Oh! take me out to see the fields,

The landscape and the sky,

And let me hear the little birds

Once more before I die.

I feel a stiffness in my limbs,

A faintness at my heart,

Which speaks too plainly, mother dear,

That we must shortly part!

Bring me my hat and shepherd plaid,

To shield me from the breeze;

And let me lean upon your arm,

To help my feeble knees.

It warms my heart to smell the fields,

And see the lambskins play,

And hear the joyous linnets sing

His sonnet on the spray.

Walk gently, gently, mother dear,

My limbs are stiff and sore;

I feel a sweetness in the air,

I never felt before.

Oh, sweetly smile yon mountains blue,

With summits towering high,

Andauteous are yon golden clouds

Slow sailing o'er the sky.

The sky resounds with music sweet,

And every bush and tree

Sends forth their thrilling notes of love,

As if to welcome me!

And must I leave the friends I love,

And scenes so fond and dear?

I feel a sadness at my heart—

Forgive a parting tear.

But sweet as are those smiling scenes,

Oh! what are they to me,

To yon bright shore, where we shall dwell

From cares and troubles free?

The tempter's smile and wicked wile,

Will pain our hearts no more,

When we get to our Father's home—

To yonder happy shore.

Then fare-thee-well, my native vale!

Farewell bright earth and sky!

I've seen thy joyful, fond loved smile

Once more before I die!

From the Christian Treasury.

MOUNT ZION.

BY THE REV. J. T. HEADLEY, NEW YORK.

PERHAPS there is no name in human history the mention of which awakens so many thrilling associations as that of Zion. It not only represents the ancient Jewish Church, and as that was dear and holy in her, but it is applied to the Christian Church at the present day. Confined to no sect, and no clime, and no language, it embraces in its catholicity all who love God, binding them in one endearing epistle together to the end of time. "Zion" there is something sad as well as delightful in the word, and the heart pauses over it with a sigh, half of regret and half of affection, for the past while its mournful history rises to view. Zion has had tears as well as raptures, suffering as well as joy, and her note of lamentation has arisen as often as her song of thanksgiving. He who has kept a record of her tears knows full well her conflicts and her trials, and that from the time of her toilsome flight through the wilderness and desert to the land of Canaan till now, she has been a stranger and sojourner in a world of wicked men. Now scattered to the four winds of heaven her children sad captives and her home the

prey of the spoiler she has wept unavailing tears at the feet of her spoilers; and now rent by inward dissensions and secret foes she has committed suicide around her own altars. But still her very dust has become precious in the eyes of him who hath formed her for himself; and out of the most hopeless bondage, from deepest ruin, he has again called her, and adorned her with robes of beauty, and put a crown of gold upon her head, and made her enemies to flee before her. Amid the amazement of those who believed her ruin complete, and the astonishment of her friends, a voice has been heard to say,

"Zion still is well beloved."

The literal Mount Zion was one of the hills on which Jerusalem was built. It stood near Mount Moriah, where Abraham offered up Isaac to the Lord, and witnessed that greatest triumph of human faith; and centuries afterwards, when the temple covered the summit of the former, it formed the heart and strength of the city. Situated at the southern extremities, it rose above every other part of Jerusalem, and came in time to stand for the city itself. At first it seems strange that Zion should have become a word filled with such endearing associations to the Jews. They could never let it go from them when speaking of their city. If her strength as a fortress was spoken of, the language was: "walk about Zion, and go round about her; tell the towers thereof; mark ye well her bulwarks, and consider her palaces." If her elevation, it was: "The holy hill of Zion." God's affection for his people was expressed by his love for Zion, "He loveth the gates of Zion." "The Lord hath chosen Zion." As it this were not enough, they and their city together are called "Daughter of Zion." Occupied by the son of Jesse, it became the "city of David," the representative of all that was dear and cherished in Israel. Hence it was called also the "holy hill of Zion, whither the tribes went up, the tribes of the Lord, unto the testimony of Israel." It was "God's hill, in which it delighteth him to dwell." Thus every word conspired to render Zion the spell word of the nation, and on its summit the heart of Israel seemed to lie and throb. While it remained unshaken by its foes, hope and joy reigned in every bosom; but when the feet of the spoiler trode its sacred top, and his conquering troops swept over it, a cry of despair went out around her towers.

How often the name is on the lips of David! and every string of his harp seems tuned to utter Zion. In a burst of lofty enthusiasm, carried away by a sudden transport as he contemplates its glory and strength, he exclaims: "Beautiful for situation, the joy of the whole earth, is Mount Zion; God is known in her palaces for a refuge. Let Mount Zion rejoice, let the daughters of Judah be glad, for this God is our God for ever and ever."

But perhaps there is no exhibition of the love the Hebrews bore for it so touching as the reply they made, when captives at Babylon, to those who required of them a song. "The joy of the whole earth hath been ravaged," and that "holy hill, so beautiful for situation," laid desolate by the enemy. Its palaces were broken down, and a heap of ruins alone mark the spot where the "city of David" arose. On its top Israel's thousands had stood and battled for its safety. Their fearful war cry had rung along its streets, as the banner of David rose and fell in the doubtful fight, till borne back and overwhelmed, leaving thousands of corpses as bloody testimonials of the desperate conflict, they at length yielded to numbers, and Jerusalem fell. A multitude of captives graced the triumphant entrance of the victors into Babylon, and the city shook to the shouts of welcome. But the pagentry was soon forgotten, and the prisoners became objects only of idle curiosity, as they moved sadly along the streets, or sat in groups under the public walks. Methinks I see that little band, as, strolling one day through the city, they sat down by its fountains and listened to the murmur that swept by the scene was beautiful, and it reminded them of the hill of Zion where they had so often prayed—the home of their hearts—never to be seen again. As they thus sat and conversed in their native tongue, filled with sad remembrances—their neglected harps hanging on the willows—the heartless and curious passed by, and stopped to view their strange apparel and listen to their still stranger language. As they saw their harps hanging beside them, they asked for a native song. The hearts of the captives were sad enough before, but this sudden recalling of the joys of the past was too much for their overburdened feelings, and a burst of tears was the only answer, as they shook their heads in mournful silence.

That day of bitterness they could never forget; and whenever memory recalled it, the heart seemed live over again its hour of woe, and they said, "by the river of Babylon there we sat down, yea, we wept when we remembered Zion. We hung our harps upon the willow in the midst thereof. For there they that carried us away captive required of us a song, and they that wasted us asked us for mirth, saying sing us one of the songs of Zion. How shall we sing the Lord's song in a strange land? If I forget thee, O Jerusalem, let my right hand forget her cunning. If I do not remember thee, let my tongue cleave to the roof of my mouth, if I prefer not Jerusalem above my chief joy." They did not forget her, and the city of David once more rose over the hill of Zion, and the banner of Israel again floated from its heights; for God had remembered her tears and forgiven her sins.

Years passed, and though visited by misfortune and ruin for its departure by the Lord, Zion still stood in its glory and strength. But

at length its long line of kings disappeared—the Romans occupied it, and the eagles of Caesar took the place of the banner of David. Still Mount Zion stood, beautiful as of old, the pride of the conqueror; but its cup of iniquity was filling to the brim. Shiloh had come, and the rejected Saviour, as he overlooked the city, wept in view of its approaching doom. There was Mount Moriah lifting the temple on high, whose glorious form dazzled the eyes of the beholder as the sunbeams fell upon it; and there, higher yet, Mount Zion, with its countless palaces, and domes, and towers of strength before him. His heart yearned over the glory of the earth, and the daughter of Zion looked beautiful upon her throne of hills and as he thought of the past—of her toils and sufferings—of her former faithfulness—and all that God had done for her, words of deepest love were heard to fall from his lips. But amid them was also heard the startling language, "Behold your house is left unto you desolate."

The last drop in the cup of crime, the crowning guilt at length came—Zion crucified her Saviour. Then long delayed curse fell, and Roman legions girdled the city. Mount Zion became the scene of the severest strife that had ever wasted it, and of the keenest sufferings its crimes had ever brought upon it. Although a troop of flaming seraphs had stooped on the temple, and with the words, "Let us depart," wheeled away to heaven again, and chariots of fire had been seen jostling against each other in the evening heavens, and a flaming sword been seen suspended over the city, and the woe of the denouncing prophet heard along its walls, still the doomed inhabitants believed them not as messengers of evil. Under their ancient banner they once more rallied for the conflict, and for a long time Mount Zion stood like a tower of strength amid her foes. Beating back the tide of battle from her sides she proved worthy of her olden renown. Standing shoulder to shoulder on that glorious hill-top, the tens of thousands of Israel's warriors presented an unbroken front to the foe, and their shout went up as strong and terrible as when Joshua led them on to victory. "Zion shall be ploughed as a field, and Jerusalem shall become heaps!" Impossible! "Walk about Zion and go round about her; mark her bulwarks, tell the towers thereof, consider her palaces," number if ye can her warriors, proud of their strength and confident of their resources. But the decree has gone forth, "Zion shall be ploughed as a field." Famine is stronger than the arm of the warrior; and inward dissensions were wasting than the sword of the enemy. The banner of Israel still floats in the breeze, but it waves over the blood of her children. Pestilence has entered the gates, and the groans of the dying rise from every house. Battered forms are seen staggering round the empty market-places, chewing wisps of straw and leather for food, and falling dead in their footsteps. Despairing eyes, and wan and haggard faces, stare from every window, and corpses are hurried in crowds over the walls, till even the enemy turn away from fetid air. The strong fall on the weak and tear them asunder, to get the morsel they have swallowed, and mothers devour even their own offspring. The thunder of engines is heard against the walls without, and the clash of steel mingles in the wild confusion. Yet even amid this terror and woe, Zion fights against herself, and strives to swell the slaughter of her own children. At length the last day and last hour comes—the temple is on fire, and flames balefully up from Mount Moriah—the eagles of Caesar flash along the crowded streets, and the shrieks of the flying and the shout of the struggling, mingled with the crackling of the flames, rise over the city. Zion at length yields, the last stronghold is taken, and the spoiler roams unchecked through the streets. "Jerusalem is in heaps," destruction has done her worst, and silence reigns amid the desolation.

Their task at length accomplished, the victors take up their line of march, followed by the long train of captives, and depart. As they ascend the last slope that overlooks Jerusalem, that mournful band pause and turn to give a farewell look to Mount Zion. As they behold it strewn with burning ruins, and think of their desolate homes never to be rebuilt or revisited, and see but a cloud of smoke where the glorious temple stood, tears of unavailing sorrow stream from their eyes, and a note of lamentation swells upon the breeze.

Years have passed by, and the plough-share is driven over the top of Zion. Where its towers and palaces stood, grain waves in the passing wind, or ruins overlaying each other attest the truth of the Word of God. The Arab spurs his steed along the forsaken streets or scornfully stands on Mount Zion and surveys the forsaken city of God.

But the promise is still sure—Zion is not forgotten, nor is her glory gone. The Church of God still lives and flourishes in more than her ancient beauty. Kingdoms may rise and fall like waves along the sea, and the strongest monuments of human skill crumble to dust, and the earth itself change places—Zion is still secure. No foe can finally prevail against her, nor even time—under whose corroding tooth all things disappear—touch her life. She has brighter places than those which adorned Jerusalem, and firmer towers and bulwarks than those built by human hands. Unseen warriors hover around her battlements, and the banner over her shall float triumphantly amid the chaos of a crumbling world. There is also a Mount Zion in heaven, covered with harpers, and the redeemed in their white vestures are there, and the song they sing has no dying cadence. Its top is crowned with a more glorious temple than ever adorned an earthly city, and there nothing that "can hurt or make afraid," shall ever enter.