

pleads for reconciliation; but let the cold or bitter, or careless words be written, and they remain forever in their full carelessness, bitterness, or coldness; ruthless are they, for though you weep as you read, they change not, and your utmost shrinking avails not to make them strike one wound the less, or one whit the less deeply. One little page has power to change a whole life. Moreover the spirit which rules them is more powerful for evil than for good—as matters of feeling. Kind words and gentle thoughts lose half their force and all their charm when they lack the voice to impress, and the look to sweeten them; but the written repulse has tenfold power to freeze—the written reproach all the bitterness of unmistakable reality. No power of self-deception can withstand them—no assumed callousness shield you against them. Still more awful is it to write one sentence which may tempt to wrong or throw even a moment's difficulty into the path of virtue; if there be sin in the forgiveness of which it must be hard for the dying penitent to believe, though years of repentance lay between him and its commission it is this—to have put a weapon into Satan's hand, which may last as long as time itself. To the sinner, perchance, it was but the deed of a moment—forgotten as soon as perpetrated; but many a moment is as a pebble cast into the waters, the circle of whose vibration shall finally embrace the whole time ocean.—*Portland Transcript.*

THE FAMILY.

Appeal to Mothers.

The child who now prattles on your knee, or sports around your dwelling, may yet tell some perishing heathen of Jesus of Nazareth; may yet be an able soldier in the army of Immanuel, and may plant the standard of the cross on the shores of Greenland, or under the burning sun of Africa. Look at Facts. What first led the pious and eminently John Newton to the knowledge of the truth? The instructions of his mother, given at the early period of four years, fastened upon his conscience, and led him to a Saviour.

Can you estimate the effects of his labors? Not till you can compute the usefulness of Buchanan and Scott, who were converted by his instrumentality,—till you can see the full blaze of that light, which the former carried into the heart of heathen India; and witness the domestic comfort and brightening hopes occasioned by the labors of the latter. Who taught young Timothy, an early laborer in the vineyard of Jesus Christ, the first lessons of religious truth? Who led Samuel, a prophet and a judge in Israel, while he was yet young, to the house of the Lord, and dedicated him to the service of the God of heaven? *A Praying Mother.*

Though the seed thus sown in childhood, may not spring up and bring forth fruit while under the maternal eye; yet we must not conclude that it is lost. A clergyman recently met a seaman in the street of a neighboring city, and pressed upon him the duty of attending to the concerns of his soul. The hardy mariner burst into tears and exclaimed, "stop, stop, don't talk to me so, it is just as my mother talked to me when I was a boy." A mother's counsel had followed him through all his wanderings, and still the words of her who prayed for him, retained their hold on his conscience.

The time has come when it is esteemed a greater honor to be the mother of a Brainerd or a Martyn, than of a Cæsar or a Napoleon. And suppose the mothers of these men, whose characters though so widely different, are so universally known, should from their unchanging state, look upon these sons whom they have nourished; what would be the view presented to them? Who would not choose to have given birth to the *Christian heroes*? Yet it is not for this short state of existence only, that you are to train your children. The little group that now clusters around you, are destined for immortality. When the world on which they stand shall have passed away, and its pleasures and its honors shall be forgotten, then they whom you have introduced to this state of being, will but begin to live. Their characters are now forming for eternity, and you are aiding to form them.

Though you may not design it, though you may quiet yourself, that if you can do them no good, you will not do them injury; yet you exert an influence which is felt, and will be felt, when

our heads are laid in the dust. Let then this appeal to a mother's feelings be heard; let it come to your own bosom, and ponder it in your hearts. Do you know the way to the throne of mercy, and can you kneel before it, and forge the children of your love? Can you watch their closing eyes, and not commit them to your God? Can you labor that they may enjoy the good things of this fleeting world, and not pray that God would prepare them for that upon which they will soon enter? Can you see them growing up around you without hope, and and without God in the world; though you may be unable to do more, can you refuse to pray that He, who in a particular manner extends the arm of mercy to those in the morning of life, would take them to his embrace, and prepare them for his kingdom.

You have seen the hand of disease fastened upon them, and have passed days of anxious toil, and nights of sleepless solicitude to arrest their malady; and have cried from a bursting heart, "Oh! spare my child!" You have seen the object of your tenderest affection sinking into the arms of death, and with a heart rent with anguish, have said with the nobleman, "Come down ere my child die." And when the last duties of parental affection were performed, and the grave has closed over the child of your bosom, you have perhaps looked back to the time when it was under your care, and mourned that you thought no more of its immortal part, that you prayed no more for its precious soul.

If you have passed through scenes like these, if you have thus felt, then remember these, now in life and health, and improve the opportunity now given you. The time of your exertion is very short. Soon your children will arrive at that period of life, when a mother's influence will be very feebly felt unless it has been early exerted. Would you find in them a rich source of consolation when your heads shall become white with years, and bodies bending to the grave? Then you will now commit them to him who can sanctify and save the soul. Should you go down to the grave and leave these objects of your love in a cold, unfeeling world, what better can you do for them than to secure the friendship of one who 'sticketh closer than a brother, and whose love is stronger than death.' The tender tie which now binds you to them will soon be dissolved; you cannot resist the stroke which shall tear them from your bosom. You may have felt the pang—your heart may have been filled with sorrow, oh then if you ever prayed, if your soul ever went to your God, in humble petitions; tell him of your children who know him not: when you know what it is to wrestle in secret with the God of Jacob, give him back in faith your children. Then in that other world to which you are going, you may through grace say; 'Lord, here am I, and the children thou hast given me.' Should this paper fall into the hands of a mother who never prayed even for herself; she must, she cannot but pray for those to whom she has given life. *Prayerless mother! spare, oh! spare your child. Stop where you now are, on the threshold of eternity, and remember as you gaze on that countenance which smiles in your bosom, that you have never prayed for its soul which will live forever. Have you a mother's feelings, and can you still neglect it?*

Oh! my God, give me poverty, give me pain, leave me friendless and forsaken by the world—but leave me not to the embrace of a prayerless mother!

Our Wondrous Atmosphere.

We must now try to conceive of the atmosphere as a whole, and to realize clearly the idea of its unity. And what a whole! what a unity it is! It possesses properties so wonderful, and and so dissimilar, that we are slow to believe that they can exist together. It rises above us with its cathedral dome, arching toward the heaven of which it is the most familiar synonyme and symbol. It floats around us like that grand object which the Apostle John saw in his vision—"a sea of glass like unto crystal." So massive is it, that when it begins to stir, it tosses about great ships like playthings, and sweeps cities and forests, like snowflakes, to destruction before it. And yet it is so mobile, that we have lived years before we can be persuaded that it exists at all, and the great bulk of mankind never realize the truth that they are bathed in an ocean of air. Its weight is so enormous that

iron shivers before it like glass; yet a soap bell sails through it with impunity, and the tiniest insect waves it aside with its wing. It ministers lavishly to all the senses. We touch it not but it touches us. Its warm south winds bring back color to the face of the invalid; its cool west winds refresh the fevered brow and make the blood mantle in our cheeks; even its north blasts brace into vigor the hardened children of our rugged clime. The eye is indebted to it for all the magnificence of sunrise, the full brightness of mid day, the chastened radiance of the gloaming, and the "clouds that cradle near the setting sun." But for it, the rainbow would want its "triumphal arch," and the winds would not send their fleecy messengers on errands round the heavens. The cold ether would not shed its snow feathers on the earth nor would drops of dew gather on the flowers. The kindly rain would never fall, nor hailstone nor fog diversify the face of the sky. Our naked globe would turn its tanned and unshowed forehead to the sun, and one dreary, monotonous blaze of light and heat dazzle and burn up all things.

Were there no atmosphere, the evening sun would in a moment set, and, without warning, plunge the earth in darkness. But the air keeps in her hand a sheaf of his rays, and lets them slip but slowly through her fingers; so that the shadows of evening gather by degrees, and the flowers have time to bow their heads; and each creature space to find a place of rest, and nestle to repose. In the morning, the garish sun would at one bound burst from the bosom of night, and blaze above the horizon; but the air watches for his coming, and sends at first but one little ray to announce his approach, and then another, and by and by a handful, and so gently draws aside the curtain of night, and slowly lets the light fall on the face of the sleeping earth till her eyelids open, and, like man, she goes forth again to her labour till the evening.—*British and Foreign Quarterly Review for February.*

The Telescope—Fate of its Inventor.

At the very period when Kepler was working out his beautiful generalizations, Galileo was constructing that instrument by the aid of which so much has since been effected—the telescope. In the early part of the seventeenth century the children of an optician in Middeburg, named Jansen, while amusing themselves in the shop, accidentally arranged a couple of magnifying glasses in such a way that when they looked through them at the church steeple it appeared both larger and nearer. Jansen took advantage of the discovery, and fitted up a similar combination in a rude frame, but proceeded no further in the matter. The rumour of this discovery reached Galileo while on a visit at Venice, and he immediately set about experimentally ascertaining its truth, although he had never seen the contrivance, and must, therefore, be regarded as the true and sole inventor of the instrument in that form alone in which it could be applied to any scientific use or discovery. He carefully adjusted a convex and concave lens of glass to each other and found that any object viewed through them became undeniably larger and more distinct. The problem was solved, and Galileo had presented the first telescope to the world. The interest excited by this discovery transcended all that has ever been inspired by any of the wonders of science. After having exhibited his new instrument for a few days, he presented it to the senate of Venice, and constructing another for himself, he proceeded with that to examine the heavens. He had not long directed it to this, the field which has ever since been its principal domain, before he was rewarded by a succession of brilliant discoveries. The belts and satellites of Jupiter for the first time revealed themselves to the human eye; other stars, unseen before, met him in every quarter of the heavens to which he turned. The moon unveiled her mountains. The sun itself discovered spots of dark lying in the midst of his brightness. But a singular confirmation of the truth of the Copernican system remains to be related. It had been objected to that system that, were it true, Venus should appear sometimes horned like the moon. To this Galileo replied by admitting the conclusion, and averring that, should we ever be able to see its actual shape it would appear so. It is easy to imagine with what force the application would strike every mind when the telescope confirmed this prediction, and shewed the planet just as both the philosopher and his objectors had agreed it ought to appear.

But Galileo's support of the Copernican system drew down upon him a religious persecution. An outcry was raised by the ignorant bigotry of the time, on the ground that, in maintaining the doctrine of the earth's motion round the sun, he was contradicting the language of scripture, where it was said, the earth was constantly spoken of as at rest. For the remainder of his life he was subjected to the persecution of the Inquisition, was imprisoned, and was compelled to abjure his doctrines. At length, weighed down by persecution and sorrow, the old man breathed his last, at the advanced age of 74.—*Foreign Quarterly.*

A Salutary Thought.

When I was a young man, there lived in our neighborhood, a Presbyterian, who was uncommonly upright in his dealings. When he had any of the produce of his farm to dispose of he made it an invariable rule to give good measure, over good, rather more than could be required of him. One of his friends, observing his frequently doing so, questioned him why he did it, told him he gave too much and said it would not be to his own advantage. Now, my friends, mark the answer, of this Presbyterian. "God Almighty has permitted me but one journey through the world, and when gone I cannot return to rectify mistakes." Think of this, friends, but one journey through the world.—*James Simpson.*

AGRICULTURAL.

ANALYSIS OF SOIL.—The following is a method of analysing soils for ordinary agricultural purposes: Weigh a convenient quantity of the earth to be analysed, say 1,000 grains dried in the open air; dry the same before a fire on paper, so as not to scorch the paper, re-weigh, and the difference will be the moisture. Roast the residue; re-weigh, and the difference will be the organic matter. Pour a quantity of muriatic acid on the remainder; when stirred and settled, pour it off, and add oxalate of ammonia; the precipitate will be the lime; mix remainder with water, and stir it well; when settled pour off the turbid mixture, and the suspended contents are argillaceous, or clayey, and the deposit silicious, or sand.

Stones.

No farmer should suffer his lands to remain encumbered with stones. Large stones impede the operation of the plough, and small ones are equally detrimental to the progress of the hoe and cultivator. There are few farms on which all the stones that can be obtained are not wanted for fencing; and where this is the case, their removal to the lines is a matter not to be included in the items reckoned as expenses. Good stone wall is cheap at one dollar per rod; it is not only the most durable fence, but when thrown down the materials are indestructible, and the enclosure may be re-erected at leisure. A farmer cannot more profitably occupy his 'leisure hours' than clearing his arable land of stones, and constructing them into walls. If the stones are small, let the wall be constructed double. By adopting this mode of construction, a vast amount of stones may be used, and with proper care in 'laying,' a most durable and tasteful fence obtained.

Chinese Agriculture.

If there is one thing that the genius of this extraordinary people has brought nearer to perfection than another, it is the cultivation of the soil. The economy of their agriculture is beautiful, the whole country presents the appearance of one continued garden; no large commons starving a few miserable horses, nor parks and chases laid waste for the special purpose of breeding rabbits are to be met with; the land is meant to feed and clothe the people, and to that use its powers are directed. Not an inch of soil is lost that can be made useful by the most laborious and apparently unpromising industry, save only such parts as are set aside for burial grounds. Swamps are drained by canals, which carry the superfluous waters where they are turned to profitable account in enriching land that otherwise would not be productive. Hills are terraced to the summits, and the banks of rivers and shores of the sea recede and leave flourishing farms to reward the enterprise of man. I know nothing that would be likely to be more valuable from this country than the report of an experienced and scientific farmer, could such be induced to bestow a short time in traveling to China and making its agriculture his study.—*Forbes' China.*