# Sermons in Stones by Amos R.Wells

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# Sermons in Stones

# and in Other Things

SOME PRACTICAL LESSONS FOR LIFE DRAWN FROM EVERY-DAY SURROUNDINGS

By

# Amos R. Wells



New York
Doubleday & McClure Co.
1899

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NOTE A

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# PREFACE

Most of these little "sermons" have first been preached in the columns of *The Christian Endeavor World*, formerly *The Golden Rule*; but some have appeared in *The Congregationalist* and *The Ramshorn*, and many others in *The Young People's Weekly*, whose publishers have kindly consented to the present use of them.

Surely one has before him the highest Example in seeking to find spiritual analogies among common things. This search has always helped me, and I hope the results of it may prove as helpful to my readers. I shall be glad if my book is of service to preachers, suggesting illustrations for sermons; to Sunday-school teachers, furnishing them with object lessons that will enforce the truths they have to teach; to prayer-meeting workers in young people's societies and in the older portions of the church, aiding them to brighten their testimonies and strengthen their appeals. In furtherance of this use of the book, I have prepared a full topical index. But above all

I want the volume to afford cheer and uplift for the life of every day. As its lessons are drawn from the common stones under our feet, the common flowers, the familiar scenes of the street and the store, so may it bring courage to the kitchen, and hope to the office, and to ordinary, humdrum tasks the thought of Him without whom was not anything made that has been made.

A. R. W.

Boston, Mass., April 3, 1899.

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"Tongues in trees, books in the running brooks, Sermons in stones, and good in everything." Shakespeare.

# SERMONS IN STONES

I.

# THE STORY OF SANDSTONE.

One pleasant summer day I stood on a ledge overlooking one of the magnificent sandstone quarries of northern Ohio. This State, you know, is, in one respect at least, the grittiest State of the Union; it leads in the production of sandstone! Far below me reached a succession of stone terraces, like a giant's stairway. At three different levels steam engines were running fretfully back and forth along their rails, cutting out deep trenches in the rock. Busy workmen were everywhere, clearing the powdered stone from these trenches, working deep holes with other engines, splitting the great blocks into smaller cubes, or with immense cranes swinging them up from the depths and loading them on

cars. The smoothly-sawn quarry walls looked like giant masonry, and so regular and symmetrical was everything that it was difficult to persuade myself that I was viewing, not some grand unfinished building in process of construction, but the quarry-mother of many grand buildings all over the land.

If I were a preacher, and at the same time a wizard, I would take my stand on just such a ledge as I stood on that August afternoon, and, waving my magic wand, would call before me a quarry full of bright folks, and when you had comfortably seated yourselves on the great stone steps, I would preach you my sandstone sermon. And this is what I would say:

My wide-awake hearers, where you are now sitting the great ocean once rolled its waves. You doubt it? Stop shaking your heads, my hearers, or I will wave my wand and bring it back again upon you! That was ages ago, however, and the sea is now far below us. On the bottom of that ocean the waves outspread great drifts of sand, swept from the sandy shore; they piled high the sea-floor with vast level stretches of it, and when they had done this work the ocean drew back and the land rose high, and lo!

carried up with it were the beds of sandstone on which you are now sitting.

You think you have caught me. "Impossible!" you cry; "sand is loose and shifting, and we are sitting on solid rock." Yes, but look sharply at that solid rock. Do you not see yet the little grains of sand? You have all seen bricks laid in mortar. Know, then, my beloved doubters, that ordinary water, too, is usually a cement, only a very weak one. Look at this bit of red sandstone. I have carried it all the way from southern Ohio to show you. It was only loose grains of sand until water came along carrying iron, and packed the iron nicely in among the sand, fastening it firmly together. Here is a bit of white sandstone, cemented by lime, and the lime was brought to it and laid down by water — " hard" water, you call it.

Do you know what this process reminds me of? Long ago men and women were as loosely joined together in society as any bank of drifting sand, and all these centuries, with their growth of laws and customs and governments, and all this network we call civilization, is just the lime or the iron cement which has bound us all together in great, firm, useful blocks. Yes, and

young folks in their schools, too, by those many rules at which they are sometimes inclined to fret, are held firmly together in a body of busy workers. Once let these troublesome laws go, these customs of society and etiquette that may make some of you a little restless to think about, and all men would soon become what they were once—a confused mass of inconstant, quarreling sand grains.

But some of you with sharpest eyes have been investigating for yourselves, and tell me with an air of triumph that you cannot see a particle of the cement I have been talking about. Certainly not. I should not have taken the trouble to carry these pieces here in my pocket if I could find them all around me. Where we are, the grains of sand have been cemented together by nothing else than the immense weight of the sand-beds themselves, which has caused the little grains to adhere to each other—not by a cement of any foreign substance, but by a cement of the sand itself. These quarrymen will tell you that a sandstone so made is much harder, and so more difficult to cut, than these lime-and-ironcemented bits I hold in my hand. Why, it is so enduring that in England once, when a gravestone of this kind, which had some inscription on it the English government did not approve, was defaced by its orders in 1662, the stone retained, for over two centuries afterward, with perfect distinctness, the marks of the defacing chisel.

And now I wonder if you do not see why I have told you this! The laws and customs in school and in the older world beyond — they are a sort of cement from the outside to bind you together into a useful whole. But there is a stronger cement, which does not come in from the outside, which will bind any body of people, young or old, into a much firmer and more useful whole. This cement comes from the heart of each one, and is called love. When you have this cement, each little gritty human sand-grain is so closely fastened to its neighbors by part of itself that there is no need at all, then, of these weaker cements from outside us — this lime and iron — which we call laws and customs. That is the first head of my sermon.

Do you know what a free-stone is? It is one which, like all these great, beautiful blocks around us, may be cut as easily in one direction as in another. There are some stones, you know, which cannot be carved without danger

of cleaving off large masses by a slight blow, thus spoiling the design; and when exposed to pressure in the walls of a building, they are likely to split in the same provoking fashion.

Now, I want you all to be free-stone people, my hearers! I could take you into quarries whose rock is good for nothing but to be split up into flagstones. And I could show you many a man who works only in one direction. Put him in his store and he is useful; he is a man. But put him before a Sunday-school class, or in a library, or on the platform at a town meeting, and he is weak and useless; he is only an apology for a man there. I want you to be all-round men and women. If you become scholars, writers, speakers, I want you also to know how to keep accounts. If you become store-keepers, I want you also to love books, and know how to use your tongue and pen in a good cause. This is the second head of my sandstone sermon.

Here are two pieces of stone which I have just picked up. They came from different layers of the quarry wall. One has large, angular grains, and is called a grit. It is too coarse even for a large grindstone. It is good for nothing but foundations and bridges. The other has grains

so fine that you can hardly see them; the stone shines like satin. From this you can make the finest grindstones, and even whetstones and oilstones. This outvalues the other many times. So, you see, the worth of the sandstone is not all in the kind of cement; much depends also on the fineness of the grains themselves.

Now, the sand could not help itself. It must be fine or coarse, as the waves ground it. But we human sand-grains can manage that matter to a great extent ourselves. I know people, young and old, who fret because they are not admitted into the finest society. The truth is, that they are too coarse for it, and would be as much out of place there as this rough grit in a box of whetstones. The world is an expert quarryman. If you are gentle and cultured—fine-grained, in a word—you are admitted into the society of the finest; but if you are harsh and coarse, over you go, as is but just, into the heap of grits. That is my third point.

Look yonder at those low buildings, from which comes the clatter of machinery. In these they are cutting out grindstones. They are working the stone almost as if it were wood. These quarrymen will tell you that when sandstone is first quarried it is "green," full of "quarry-water," and cuts like cheese. Beyond those buildings do you see the immense piles of great grindstones, heaped to the height of an ordinary house? What are they doing there? Why are they not sold and sent away? Well, they are seasoning. They will lie there a few months, the water will evaporate, and the stone will become very hard and tough. If these great blocks were put into a building, or if those grindstones were to be set revolving, before this seasoning process were completed, they would crumble down and fly to pieces.

A word to the juniors in my audience. Ah, young people, with those great piles of waiting stone in sight, I cannot refrain from telling you that I often see many of your age pressing for positions of influence and responsibility when they are quite green, and unseasoned by age or experience. They are not patient enough to pass through their apprenticeship. The first school they teach must be a large one. They will not "hire out" on the farm, but must own their own land. They will not clerk in the store, but open an establishment of their own. Yes, and many a time I have seen the unseasoned

sandstone of such foolish lives fly to pieces in the whirl of unwonted business, or crushed beneath a responsibility to which it was not yet equal. That is my fourth sandstone parable.

I said a moment ago that freestone is easy to work in any direction, and yet even the finest freestone has a "grain," running parallel to the plane of the original beds, and when these great blocks are laid in handsome walls the masons are very careful to place them "face down," because stones weather least when the edges of these planes are exposed to the air, and weather very rapidly when they are laid with these planes facing the outside world.

Now, even your all-round man I have spoken of has his lines of special likings; his hobbies, the irreverent call them. And it is well enough, so long as he keeps them face down, and shows his friends their edges merely. But as soon as he turns his plane of special liking, his hobby, around, so that it faces the world, and we can see nothing else when we meet him, we dub him a "crank," and say that he does not "wear" well. That is the fifth head of my sandstone sermon

If you should come here in winter, you would

not see these great heaps of cut stone lying about. You would merely see the workmen busy stripping off the soil, carting away the dirt, and getting everything ready for the spring and summer quarrying. This is because, if the stone were taken out in cold weather, the water already inside, and the water which soaks in, would freeze, and soon split the rock into small pieces. For that reason, they quarry only in warm weather. And in some places the rock is worthless because it is so porous that the water easily soaks into it when it is part of a house-wall, freezes, and cracks the wall.

You see, it is dangerous for a sandstone, as well as anything else, to be too receptive, too ready to receive whatever seeks admission. The self-contained people are least in danger of becoming "cracked." They make all candidates for admission to their lives, be they amusing plays, or books, or companions, stand well off until they have proved their character and value. That is my sixth lesson from the sandstone.

You may have heard of the "brown-stone fronts" of New York. In the times of our fathers a beautiful reddish-brown sandstone, which comes from the Connecticut valley, was

very fashionable in the Eastern States. They would usually build a brick house, and fasten to the front a sort of veneering of this rich sandstone. Well, now the sandstone is splitting and bending, and many of those "brown-stone fronts" are in a shocking state.

That is the way with all veneers. If we own a quarry of fine sandstone, it will be well to have a sandstone house, sandstone clear through and all around. But if we have nothing except a clay field, let us burn good, hard bricks, and build our wall, all through, of those. That is the last of my sandstone parables.

And now you have sat still long enough, and the quarrymen are anxious to go on with their work. I will wave my magic wand, and scatter you to your homes.

#### II.

## FISSURE VEINS.

Did you ever think how Nature heals the wounds that she herself makes in the earth? The rocks are rent by earthquakes, or by volcanic convulsions of different kinds, and yawning chasms stretch here and there, reaching sometimes to the surface through the soil, stretching down sometimes to the molten layer below.

But these clefts do not long remain open. As speedily as the plasma oozes out to mend the broken bone, so promptly does Nature heal the broken earth. Water filters down from above, heavily charged with earth cement. It rushes in from the sides, and great volumes of hot water rise upward from the earth's interior. Metallic gases also escape from pent-up caverns, and cool in these fissures.

The result is speedily a layer of most lovely substances, encrusting the uneven sides of the cleft. There is calc spar, with its beautiful white, transparent cubes. There is the royal purple fluor spar. There is the waxy pure alabaster. There is the soft gypsum. There is clay, in all its rainbow colors. There is glittering quartzite, of as many colors as the clay.

Band after band of these substances is laid along the chasm, until the rough sides become smooth and beautiful, and glowing with colors. From side to side stretches a network of the finest crystal, weaving it all together with fairylike lace.

But not even that is the best of Nature's healing. It is in these chasms that the world's great mineral deposits are found. The hot water, boiling up from the earth's metallic center, brings rich store of iron and lead, of copper and silver and gold; and as it cools deposits its precious freight in sheets and veins and nuggets, mixed in with the beautiful crystal, so that the portions of the earth's crust that Nature has chiefly shorn and shattered, to these she gives the richest compensation, and has made them the treasure chambers of the world.

What a hint is here for all mortals whose lives are rent by misfortune, or torn by any great grief! Has serious loss of money come upon

you, for instance? That is a sad shattering of many of your hopes and plans. Nevertheless, in this fissure it is possible to deposit crystals of good cheer and independence, rich veins of ingenuity and industry, that will make this yawning misfortune the richest portion of your lives.

Or is it sickness that has cleft your life asunder? With what richness this fissure may be healed! There is patience spar, and the golden common sense, crystals of song, and serenity, and courage, — all of these may knit the chasm together, and make it stronger and more beautiful than it ever was before.

Or it may be failure that makes the fissure. Here is chance for rich deposits of perseverance and determination, of peacefulness and of faith.

Saddest yawning chasm of all may be that terrible fissure we call death; but even this is not beyond the healing that you can win through the help of the Spirit. There is the gold of prayer. There are the priceless crystals of submission and bravery and trust. All these may brighten and enrich even that terrible cleft.

How poor would this earth be without its fissure veins to afford egress for its hidden riches! and how poor would men be, — let us acknowl-

edge it in the midst of all our trembling and doubt, our perplexity and grief, — how poor would men be without these earthquake fissures that bring from the very depths of our being our hidden and unsuspected powers of feeling and of action! We tremble at the earthquake, we shudder at the chasm, because we are human; but we are also children of the God of the earthquake. Let us trust in Him.

#### III.

## THE HIDDEN PYRITE.

A builder once chose a block of sandstone for the keystone of the largest arch in a beautiful public building. The block was pure white, with a fine, even grain, and seemed precisely the stone for the purpose. The cutters chiseled it deftly into shape, other workmen hoisted it into its place, and the magnificent building rose many feet above it, binding it firmly in.

A few weeks before the building was to be dedicated there were heavy rains, after several days of which the architect chanced to glance at the main archway, and at once contracted his brows in a terrible frown. Calling the builder to him, he pointed, quite speechless with rage, to the keystone of the arch.

There was an ugly black stain, that began near the centre of the block, and ran in an awkward, twisted line, down over the exquisite carved work beneath. They tried to wash it away, but only made it worse. Then they tried to chisel it out, but the deeper they went the blacker it grew. The building was defaced forever.

The trouble was this — and it is a trouble very common in sandstone. Just underneath the surface, so that the cutter's chisel did not expose it, lay a small mass of iron pyrites. This is a mineral made up of iron and sulphur. It is very common in sandstone and limestone, and is very annoying. Often it is called "fool's gold," because it is bright yellow, and glitters; but there is no gold about it.

It lurks unsuspected in the nicely cut stone, until the rains come. Then it is not long before the mineral rusts, and rills of inky water run down the block, inside and out. So it goes on until the iron is all dissolved away, and the beauty of the stone utterly ruined.

Do you know, I cannot see a building disfigured with these iron stains without thinking of the temple of character we are lifting up, block by block, story after story, as our lives go by. I have made this mistake, oh, so often! I have chosen a block for that building merely because the surface glistened and was fair to see. I have

eagerly chiseled it into shape and set it in its place, and hurried to put other blocks on top of it, so that it might become a permanent part of the house I am building for my soul to live in forever.

And then there have come rains — rains of sorrow, and temptation, and disappointment, and opposition — and I have seen a stain grow out of these blocks that seemed so fair, and I have known that the iron pyrites of sin lay hidden under the shining surface. May be it was a position I had taken, for which I was not fit. May be it was a pleasure I had seized upon, though God had not meant it for me. May be it was a study I had undertaken, when God had other work, less pleasant, for me to do. And thus, concealed in what seemed so solid and splendid, had been a black and mischief-breeding sin.

Sometimes the stain has appeared quickly enough for me to tear the block out of the building. But often, alas! the courses laid above it have been too heavy and firm, and the temple I am building for my soul is marred all over with these disfigured blocks, so fixed that I cannot stir them. I have a hope—indeed, I am sure—

that my Master, under whom I am working, knows how to wash every stone clean and fair again; and I am sure that He will do it, some day, if I build well for Him.

But why was I not more careful? Why did I bring upon myself all the trouble and humiliation of these stains that I cannot wash out? There are sandstone quarries that never bear iron pyrites. I could get blocks for my temple of character that would be pure all the way through.

For — let me tell you a secret. There is an old geologist named Conscience that goes around with a little pick and a little hammer and a little bottle of acid, and he tests all sorts of rocks, and never makes a mistake. Some rocks he marks "Dangerous!" and some rocks he marks "Safe!" I felt it my duty to tell you this, though I am ashamed to tell it to you, because now you see that I had absolutely no excuse at all for putting into my building those stones with the hidden pyrites.

### IV.

#### HUMAN PSEUDOMORPHS.

I have found a genuine treasure. Do you want to see it? Yes, it glitters prettily in the sun, and its angles are clear-cut, but that isn't why I value this bit of stone. Do you see those crystals, covering the floor of that depression? Well, sir, what do you think those crystals are made of? Lime? I thought you would say so, but you are mistaken, though they have just the flat faces and four slanting sides of lime crys-But see! I touch it with a drop of acid, and the crystal does not effervesce, as lime would. And see! I run this projecting crystal along the window-pane, and it scratches the glass. Now what do you think about my treasure? These are quartz crystals, in the shape of crystals of lime.

Why, that is almost as wonderful as it would be to find flowers opening on girls' faces instead of mouths. Every mineral has its own way of growing, and it's as natural for quartz to grow into six-sided prisms capped by six-sided pyramids as for boys to grow into men. How, then, does it happen that quartz got into the rhombic shape of a lime crystal here? And how does it sometimes happen that lime returns the compliment with that imitation which is the sincerest flattery, and takes the shape of quartz crystals, and that many other minerals do the same thing?

It is all brought about by water. These quartz crystals I have here, for instance, were once held in solution in some underground hot spring which came up near a lot of lime crystals. The water, hot and acid, dissolved the lime crystals, and deposited at the same time the quartz it was carrying, so that the quartz just filled the space occupied by the lime, and looked like a lime crystal, though a few tests at once betray it. Do you want to know what such crystal hypocrites are called? They are called pseudomorphs—that is, false forms.

And now I have shown you my quartz-lime pseudomorph as a solemn warning. Don't go and do the same thing! You smile, and think me somewhat silly, as if I really imagined that you might become a tree or a flower. But there

is George Saunders. Do you know, I really thought a few days ago that he was a pseudomorph of Sam Dawson? He had his queer giggle, his jerky way of saying funny things, his wink of the eye, his manner of tipping his hat, nay, even his style of necktie. Now, Sam is a smart fellow, and possibly some one took George for Sam—eighty feet away; but they didn't have to come very close before discovering that he was a pseudomorph.

And there is Lucy Pratt. She has been growing for some time into a startling pseudomorph of that talented Pearl Gardner. She has her accent, her swinging gait, her elegant use of French words when she talks — oh, she's quite a Pearl pseudomorph.

Now, though a mineral pseudomorph has some praise, a human pseudomorph has none whatever. The imitation in the human being goes no deeper than it does in the stone; it's just an outside affair. A few tests, a little conversation, would show any one that George hasn't naturally Sam's bright oddities, nor Lucy, Pearl's brilliancy. Pseudomorphs never fool any one very long.

And why should they want to, any way?

Every human being, like every stone, has his own natural and beautiful shape, in which he looks best. Your own proper manner, frankly worn, is better than the borrowed manner of some one a thousand times your superior. George's sturdy common sense will please people in him better than the best imitation of Sam's wit he can ever compass, though he practice a life-time. Lucy's quiet, gentle ways are infinitely finer in her than all of Pearl's brilliancy she can ever reflect.

Don't be pseudomorphs!

### V.

### PRECIOUS CARBONADO.

Carbonado — what a pretty word! But the thing itself is not half so pretty. I have a piece here in my hand, — an ugly, blackish-brown stone, rough and unsightly. It came from Brazil, from the diamond fields there, and you would be astonished if I told you its real nature. It is a poor relation of the diamond! It is a diamond Cinderella, all begrimed with ashes by some hard-hearted mineral godmother; and the fairy coach has never yet come along.

Really, carbonado is a diamond. It has the same chemical composition, but that is saying little, since coal has that; and it has the diamond's hardness. That is why men value it, for I had to pay a good round price for this bit of carbonado, though of course very far below what a diamond of the same size would have cost. It is black, and rough, and opaque, but — it is hard, and, like Cinderella, knows how to work.

And just as Cinderella had to wait on her pretty half-sisters, so this carbonado is made to wait upon the diamond, and dress it up in its beauty. If it were not for this carbonado many a diamond that now sparkles on white hands would be sulking, as ugly as carbonado itself, in some dark corner or other. But the carbonado is crushed into sharp, hard dust-grains, and scattered on a rapidly revolving steel plate. Against this plate the diamond is pressed, and all its glittering, marvelous facets, that catch the light in prisons of gold and azure and emerald, are cut speedily and accurately. The diamond can be cut by diamond-dust, and by nothing else.

Now you see why I call it "Precious Carbonado." Carbonado is not precious as jewelers count it. You may buy it for a song, compared with its proud diamond sisters; yet if it were not for carbonado you might also buy diamonds for a song. Carbonado is precious because it makes other things precious.

And now you who read these words — are you a piece of human carbonado? Is your nose a pug, your complexion muddy, your cheek freckled, your hair carroty, your hand coarse, your mind slow and dull? Thus far you are like

the ugly carbonado; but thousands go so far, and not far enough to be called precious carbonado.

For, if you are not pretty yourselves, you may make others pretty. If you are not talented, you may polish other intellects that are blest with genius. You may be a school-teacher, plodding through humdrum rounds of duty day after weary day, that Tom may be a statesman, that Ned may be an inventor. You may farm it or clerk it, year out and year in, that your wonderful little sister, with her shrewd wits and sweet soul, may go to Wellesley.

And in such lowly service for the diamondembellishment of others you are showing diamond qualities, my dear human carbonado. When Tom has become a statesman and Ned an inventor and your talented sister a poet or a professor, they will have no finer qualities of soul than you. Their minds will be no better knit, their temper no nobler, than yours.

They will glitter more brilliantly in the world's eye, my ugly precious carbonado, but the One in whose quarry we are sees not as man sees. When He comes to make up His jewels, He will set carbonado in the summit of His crown, and it will shine like the stars of the morning.

### VI.

# THE STONE THAT SEES DOUBLE.

Did you ever see a duplicating crystal? Here it is. Observe this piece of cardboard. One line is drawn across it. Now look at it through my crystal, and you will see two lines. I will make a black letter A. Through the crystal, you see, it is AA. What is the stone? It is one of the lime crystals, and is called calcite; or when it is very pure and transparent like this, it is called Iceland spar, because fine specimens of it have been found in Iceland.

You want to know why Iceland spar sees double? It is because the little bits of matter which make up the stone are so arranged that it is easier for the light to pass through in two directions than in others, and so the light is split into two rays, and we seem to see two objects, where there is only one.

Many crystals besides Iceland spar will do this, and even those that will not ordinarily do it, such as common glass, will do it when under pressure, or unequally heated, or rapidly cooled. These things strain the glass, and rearrange its particles, so that the light passing through it is divided in this strange fashion.

Every time I see Iceland spar — and that's not often, to be sure — I think of the poor folks who go all their lives with Iceland-spar minds. They see everything double, the unfortunates! Make in their presence the simplest statement you please, and they will begin to take sides and argue it, half of their mind for, and half against, your remark.

"What a happy thing that Sairy Jane got well again!"

"Yes," grunts old Mrs. Iceland Spar, "only she suffers right smart yet a while. Though it's less'n it was. But I guess she'll never get around much. Notwithstanding, her spirits has riz, wonderful."

Possibly Mr. Iceland Spar has a business partner, who suggests that they have had a marvelously successful day's business. "Well, yes, so far as butter goes, and groceries. But we haven't sold a yard of dress-goods. To be sure, those new ribbons have gone off finely. But no

one has even asked the price of our new lawn-

Or it may be that young Jack Smart is commended in young Iceland Spar's presence. "Ye-es. Tolerably fair fellow, Jack. Fair-to-middling. Wish he would look you straight in the eye. Yet he's as honest as the day is long. Only he thinks a little too much of himself."

Now the Iceland Spar family think that all this shows that they have well-balanced minds. Their idea of a well-balanced mind is of one that takes everything and weighs it suspiciously in fine scales that a hair will turn. They mean to be judicious, and they are on the judge's bench all the time.

This is very shrewd, I suppose, and yet one would soon get tired of looking through Iceland Spar windows, and I should think an Iceland Spar mind would become a very wearisome affair. It's well to be able to look on both sides of a question, but it isn't well to look on both sides of all the questions that come up. Very little would get done in the world that way.

And besides, it is far from necessary. These people whose minds see double are no surer, for all their arguing, than the folks who live in a less

philosophic but more comfortable way. Both classes come to the same conclusions, usually, but the Iceland Spar man goes away around Robin Hood's barn after his conclusions, when he might have had them direct.

Ah, there is a good Book that urges us to let our eyes be single. A single eye is one that sees direct to the truthful heart of things, with no paltering and debating. He who is the Light of the world can let us into the secret of such seeing.

# VII.

# QUICKLIME.

It is an interesting story — the history of the change from solid limestone to the mortar that binds together the bricks of a beautiful building. It is the quicklime that does it all. And what is quicklime? It is lime that is alive, eager, active, while all will agree that ordinary lime is stolid enough.

Limestone is lime itself, plus carbon, plus oxygen — certain amounts of each. The combination of these elements, in these proportions, makes a solid rock. But when the limestone is heated red-hot in the limekiln, some of the oxygen and all of the carbon fly away as an ill-smelling gas, that has often choked me as the wind blew toward me from over the top of a kiln.

There is left a white, powdery mass which is quicklime. Now, if water is mixed with this it becomes slaked lime. The water is very greedy for the quicklime, and the little particles of each

fly together so smartly that they make a great deal of heat. You may try it for yourself. You can hardly bear your hand near the fuming mass. While the lime is thus slaking it is in a soft, pasty condition, and can be worked in any way you please. It is mixed with sand and cow's hair to strengthen it, and is spread between bricks to hold them together.

That brings us to another problem. How does this soft, pasty mortar become hard and durable again? In this way: You remember that the kiln-fire drove carbon and oxygen away from the limestone in an ill-smelling gas. All air is full of this gas, though not full enough to be offensive, unless we are shut up in a tight room. Then the air soon becomes suffocating with it, for, strange to say, this gas comes from the furnace of our bodies as well as from the lime-kiln.

And so, since all air has this gas, the slaked lime in the mortar is not long in taking it back. As the rain falls on it, and the air soaks into it, slowly but surely it turns back to limestone again. It is just about what it was at the start, except that it has become stronger for the sand and the cow's hair, and is doing noble work,

holding together the bricks of a beautiful building.

And now why have I told this history of quicklime? It is because we ought all of us to become quicklime, at some season of our lives. We are tough stones enough, the most of us — harsh and ugly and obstinate; and, to look at us, no one would guess that we could be bent to serve the purposes of the Great Architect.

But God knows how to tame our stubborn wills, and make them pliant to His loving designs. He has furnace fires — kind furnace fires they are, though they seem terrible to us — fires of disappointment and trouble, of grief and sickness and failure. Into these fires He puts us, and if we are the genuine limestone, fit to make mortar of, away go those ill-smelling gases — obstinacy, self-conceit, selfishness, pride—and we come out of the dreadful kiln — quicklime.

Now God can do with us as He pleases. Now He can mingle in our being new elements of strength, as the hard sand and the binding hair were mingled with the quicklime. Now He can dispose us as He will in the great temple He is building, the temple whereof Christ Himself is the chief corner-stone.

And now, at last, having found our place, or, rather, having allowed ourselves to be put there, we can become "set" as the mortar did. It is a terrible thing to be "set" in one's way, if that way is a mean one; but if we are where God has put us, then the more firmly we are "set," the better.

From God's fresh, sweet air, and His showers of refreshing, we drink in the elements of permanence, until at length we find ourselves firm and solid rock again. But how nobly changed! New strength has been given us, and we have become a useful, a necessary part in a building of God, a house not made with hands, eternal, in the heavens.

### VIII.

### GEODES.

I really suppose that the geode is the greatest surprise in nature. It is a rough, ugly stone, somewhat round, looking like a coarse bit of rock that has been rolled in some ancient ocean. Shake it, however, and a rattle within may tell you that it is hollow. Crack it neatly open, and lo! a marvel! There flashes out into the sunshine a fairy grotto, as delicately hung with wreaths of crystal, with pendants and streamers of crystal, as gloriously embroidered with crystal lace and hung with crystal tapestry, as the submarine chamber of the queen of the sea-nymphs. The crystals may be yellow or purple or pink or snowy-white. In one they will be small, a crystal frost-work. In another they will be royally large, and clear as cut-glass.

We may find them lying in the dirt at the foot of this limestone cliff, from which they have fallen as the rain washed the cliff away. How were they formed within the solid rock? At first there was nothing but a limestone hollow, worn out by a steady, soaking current of water, creeping along between the vast limestone layers. But that water contains quartz, and as it gathers in the hollow and fills it, it slowly evaporates. The quartz does not evaporate, and so, as more and more water with quartz comes in and evaporates away, leaving quartz behind, the water soon becomes saturated with it, and has to drop it.

Thus a layer of quartz crystals is begun — of fine quartz crystals, through which fresh water seeps, bearing more quartz, and ever more. Soon the crystals grow, adding fresh layers to this side and that, and joining in wreaths and plumes and sprays, until, after years of hidden toil in that dark place, the fairy grotto is complete.

Does it seem to you a sad thing that there should be so many, many million of these beautiful geodes hidden away in the limestone masses of this great earth, or covered up in the dirt at the foot of cliffs? Do you think it too bad that some geologist could not extract them all, and

crack them in two with his hammer, letting the secret beauties out?

Well, if that seems too bad, what do you think of geode people? You have never seen them? O yes, you have. There's Mrs. Marvin, that cross-grained, crabbed old woman. She's as rough on the surface as any geode that ever was, but only God knows the splendor within — God, and those who happen to be acquainted, as I am, with her long, hard years of exhausting toil that her beloved boy might become a useful man. Then there's Parson Tedrow. You think him dull and stupid as ever a ball of cold rock, and indeed he knows, as well as you, that he was never cut out for an orator. But there are hundreds of poor people in this town, and of weak and tempted souls, and of sad, discouraged souls, that could tell you of Parson Tedrow's secret chamber, all glorious with jewels of love and strength.

Geode people? They are all about you, and one of the purest joys of life is to discover them. They are crusted over with a shell of unfortunate temper, or physical ugliness, or poverty, or ignorance, and not one man in a thousand ever

guesses what the rough exterior hides. But God knows.

God knows. There is the comfort for all His unfortunate folk. No life need be without beauty, however coarse and ugly its outer show. God's streams of graciousness are eager to fill all inner crevices and caves, and transform them into kings' palaces. Building in the dark, unknown to men, yet they build for the light; for some day the ugly shell will become transparent or will fall away, and we shall know and be known as we are. The beauty of all souls will be disclosed.

There was once found in the West the most marvelous geode that ever grew. When it was split open a cross glittered in the light, a cross of a thousand crystals. In that day when we shall know and be known as we are, when all the awkwardness and coarseness and hardness and ugliness of this world has slipped away, God grant that the inner chamber of our souls may be found hung with wreaths meet for a seanymph's grotto, crusted with jewels fit for a king's palace, but — more than that — enshrining the crystal cross of Christ!

# IX.

### SOAPSTONE PEOPLE.

In a certain geological cabinet there is a set of specimens which I always like to show people. Let me show them to you. Here is a mass of beautiful pale green stone, sheeny like pearl, and flaky in broad, brittle leaves. Feel it. "Ah, how soapy!" you all say. Scratch it with your finger-nail. "Why, how very soft!" Yes, it is remarkable for these two things. It is called talc, and is made up of quartz and magnesia, with a little water.

Do you want me to show you some of its rock-relatives? Here is soapstone, like it, only harder. See what a curious, intricately carved vase the Chinese know how to cut out of their beautiful soapstone! And haven't you felt the pleasant heat from a soapstone stove? And you surely have used those soft, greasy soapstone slate-pencils. This handsome, translucent mineral, a deep oily green, is serpentine. You note

the mottled appearance, like a snake's skin? Then you understand its name. Here, too, is chlorite, a first cousin, much like talc.

Usually, when my shoemaker makes a pair of boots for me, he gets them too tight. Tug and fret, pulling all in vain. "Oh!" says my shoemaker, "forgot something!" And he dusts into the boots from a sort of pepper-box a little white powder which he calls French chaik. Presto! The boots are on in a flash! That slippery powder is only ground-up soapstone.

When my tailor cuts out a suit of clothes, with a complex steel instrument he marks out the pattern on the cloth, using a fine white crayon of tailors' chalk, which is our soapstone once more. And if a drop of oil from the sewing-machine falls on the goods, a cake of this same useful soapstone rubbed on the grease-spot soon draws the oil to itself.

This soapstone is friend to the glass-cutter also. It marks off his glass before the hard diamond cuts it. The porcelain manufacturer mixes it sometimes with the plastic mass which is to come out our teacups and plates. The mechanic dusts soapstone powder into the joints of his machine to make it work smoothly. And

to end the varied list of its uses, some wild folk in South America and in the southern Pacific actually eat the stuff! I suppose they *feel*, at any rate, as if they had had a dinner, poor things!

These are its uses, but I must mention two very sad *ab*uses. Men grind it up to mix with rouge, and then some foolish women paint their cheeks with it to counterfeit the beautiful glow of health, and look as hideous as those poor savages who only eat it. Or sometimes men cut it when it is soft, and color it to imitate engraved stones, finally hardening it by heat. How ashamed the honest stone must feel, when forced to become such a cheat!

And soapstone people? Why, you see them often — these large, smooth-mannered, easygoing folk, who never worry, and pay no attention to other people's fretting. How they lubricate our social machinery, and make everything run pleasantly without a jar! Let us honor them, and try to get a little of the soapstone unctuousness into our own grating composition!

Yet there are soapstone dangers. Just as savages eat the mineral, so sometimes men of a harder temper take quite abominable advantages of our complaisant soapstone friends! And just

as there are soapstone counterfeits, so those easy-going people, in their desire to be friendly with every one, are likely to pretend interests and sympathies and friendships which they do not feel! The poor mineral cannot help itself, but as for us, rather than be a dishonest soapstone, let us become the harshest "grit" in the quarry!

### X.

## THE SCALE OF HARDNESS.

There is among stones a sort of untitled nobility. Some, the plebeian stones, are soft, and unable to resist the slightest rough usage. Others, the powerful and kingly stones, defy all the harsh knocks and angular corners of the world to mar their serene faces. The list of orders of this stone nobility is called the scale of hardness, and with its help the skilled mineralogist, like a shrewd master of ceremonies, would soon settle all disputes for precedence that might arise in what Ruskin calls "crystal quarrels."

There are ten divisions of this scale of hardness, and the diamond is, of course, number ten. Thus, you see, it has a double title to constitute the "upper ten" of mineraldom. Strange to say, its brother, the graphite of our common pencils, made all of carbon, as the diamond is, yet stands at the very foot of the scale, in genuine Cinderella fashion. Next to the diamond,

number nine, is the beautiful blue gem, the sapphire. And this, too, like the diamond, has its plebeian relations, for soft clay, at the bottom of the list, consists in great part, like the sapphire, of the marvelous metal, aluminium.

Number eight stands the brilliant topaz, one-half aluminium, but with baser admixture. Number seven is our common quartz, and good hard glass will show you how hard that is. Common glass, however, is usually a little softer than the pure quartz. Do you know why?

Feldspar, the pink and white, table-faced, opaque crystals you see in granite, occupies the sixth place in this list of honor. Ground up by the weather, it makes soft clay, and appears again in bricks and earthenware. Opal, a softer variety of quartz, ranks with it, and here, too, belongs fool's gold, otherwise named pyrite, a hard, yellow compound of iron and sulphur very common, even in limestone and coal. And here, too, place turquoise.

Half-way down the scale stands a substance unfamiliar to you, which yet makes part of some of the farmer's best fertilizers, the mineral apatite. It is a compound of lime and phosphorus, and is a little harder than iron. Number four

also is probably a stranger, the charming purple, green, or yellow stone called fluor spar. Lead at its hardest will give you an idea of number four, however. Calcite, which is nothing but lime crystallized in hundreds of wonderful forms, is number three, and near it rank gold, silver, copper, and mica.

Rock salt is number two. Gypsum and sulphur and amber are other substances which have a similar hardness. At the base of the scale is placed a soft green mineral which may be scratched with the finger-nail, the talc which makes tailors' chalk. True chalk, lime-chalk, is also number one.

Now, a stone which quartz will scratch must be lower, you see, than number seven in the scale, and if the stone will also scratch feldspar, it must rank above six — six and one-half, say. Native iron, for example, scratching fluor spar, but being scratched by apatite, is counted four and one-half. You see the use of the scale.

These poor stones must remain in the order wherein they were placed by nature. But God arranges for each man a similar scale, through which he may rise or fall at his will. We may make of ourselves weak, crumbling clay or chalk,

scarred by every trial and yielding to every temptation, or by successive toughenings of our moral fiber we may rise through all the degrees of stability and strength to the brilliant rank of diamond-characters, unconquerable — for that is what "diamond" means — unconquerable by all wrong. How glad the stones would be if they had this privilege!

### XI.

#### DEEP SOIL.

I should like to walk with you to a certain fine hill-top I once enjoyed often, from whose summit one gets the most extensive view to be obtained in that portion of Ohio. The hill is nothing but the outcropping edge of the solid Clinton limestone overlooking the beautiful valley of Mad River, which has gouged out the stone in a wide trench.

Along the summit all is stony. There is a stone house, with a large stone barn and long lines of stone fences, rare indeed in Ohio. Through the thin soil the stone peeps up everywhere. The road is along a level ledge of it, and in places the very posts must be clamped to the rock, in default of supporting earth.

But down in the valley below, in the rich, deep soil, grow marvelous crops of corn and cereals. What makes the difference?

Soil is made from solid rock, torn down chiefly

in the following way: Each summer, water soaks into the millions of little crannies in the stone, and each winter it freezes, and expands with irresistible force, after the blessed fashion God has given it. The rock is crushed by this swelling ice into a fine powder, which the spring freshets gather up, and hurry down into the valley below, adding to the already deep soil there, and leaving bare on the heights fresh surfaces from which the same process will make new soil next year.

Of course, other factors enter the problem, such as the cold, the dryness of the climate, the amount of acid in the water, the hardness and compactness of the rock. But the two I have mentioned are the main factors, and so you see why the highlands have shallow soil, and the valleys are richly clad.

Now, Christ's wise sower-parable has taught us all how shallow soil works. It is warm, impulsive soil. The rock is near the surface and reflects the heat, so that the seeds quickly germinate. But they can send no long roots deep into moist, cool places, so that the summer droughts wither the shallow plants more rapidly than the spring sun caused them to spring up.

You have all seen the characters at which Christ points his loving satire. They are quick, impulsive, ready for good or evil, fickle, never to be depended on. They are active and earnest in good work to-day, wholly engrossed in selfishness to-morrow. All of us have shallow soil in some parts of our lives.

To deepen it, remember my parable. In the first place, put yourself in lowly attitude, as the valleys do. Place yourself in position to receive tributaries, enrichings, deepenings, from men and women of longer experience; from books, sermons, nature; from the Bible and from prayer. Be humble and teachable.

But do not forget that frosts are at the bottom of all depth of soil. Hardships best deepen character — attempt and failure and attempt again, poverty, pain, sickness and disappointment — God's sterner as well as His gentler teachings.

So, having root in ourselves, may we grow up in all things into Him who is the Head.

#### XII.

### SLATE-CHANGES.

Let us look for a moment at a school-boy's slate. How black and smooth its surface, and what a fine, velvety gloss it has! Now let me show you what the slate used to be. Look at this slab of shale, which is nothing but coarse mud, placed in rude layers and become hard. Would you ever suspect the relationship?

Imagine a country made up of this mud-rock, this shale, many miles wide and long, and many thousand feet deep, but lying flat and level. Far back in the ages something happened. There came fearful earthquakes, and even more powerful but unnoticed crushings of the earth, squeezing and crowding and wrinkling slowly but mightily, as the earth cooled off and shrank in cooling. This tremendous pressure folded those level layers into tall mountain ridges, and at the same time changed the rude shale into such slate as you hold in your hand.

There are many mountain ranges, like those in California, which a sufficiently big giant with a sufficiently big knife could split lengthwise, straight down, into millions of fine, thin plates, like this school slate. These plates are not the same as the rough shale layers, but run at a large angle to them. How did the powerful earth-pressure develop them?

Well, go back to your babyhood and make me a mud-pie. Press the pie between two boards and let it dry. Then see if you have not made a pie which can be split into several sheets, like layer-cake. The reason? Well, that mud was not pure. It had in it bits of mica and of lime, grains of sand and slivers of wood, and when you pressed it, you twisted all of these foreign particles, turning them so that they lay at right angles to the pressure. Besides, there were little air-bubbles everywhere, and portions of harder clay throughout the mass, and all these were flattened out at right angles to the pressure. No wonder you could split it along these lines!

But that isn't all. When next your cook makes bread, get her to press some dough, and show you how nicely the dough may be torn apart along lines at right angles to the pressure.

Or, you may do the same with bees-wax, and the purer the wax the better. So you see that there is a bit more to the explanation, which is this: When you squeeze the clay or the dough, the little particles of matter try to get out of the way. They can move only at right angles to the line of pressure, so if you squeeze horizontally, say, they will move up and down. This loosens the little bits from each other in an up-and-down direction, at the same time that the squeezing forces them more solidly together horizontally. And for this reason, also, your vertical sheets are formed. Put all of this together, and you have the full process which made your fine slate out of this coarse shale.

Something so like this goes on in every human life that I must just mention it to set you thinking. We make our plans, set our purposes in certain directions, along certain places of action. And then comes some strong calamity and squeezes, twists, upturns, until all our plans are awry. But it is only that along new lines of God's choosing we may be fashioned into finer substances than we had ever thought of before!

### XIII.

# WHY FLINT STRIKES FIRE.

In many parts of the United States, whatever crops the fields may bear, they will continue for many long years to bear for the sharp-eyed iarmer's boy one very important staple — the occasional Indian "arrow-head." These bits of flint, now regular, now irregular, are not by any means all arrow-heads. Some are daggers, some knives, some spear-heads, some amulets, some wedges, some mere chips flaked off in the process of manufacture. But whatever use these charming bits of flint may have served in those old mysterious days, to the small boy they are all arrow-heads, and why need we be wiser than he?

That small fellow is not slow to repeat the discovery of the first users of those stone implements. He soon finds out that when he strikes two flints smartly together on the sharp edges, a beautiful spark darts out, or sometimes a

shower of them, as if the angry stone were spitting fire. Why is it?

The small boy takes limestone and tries the same experiment, but in vain. He seizes two flakes of shale, but they have no fire-reservoirs. He stumbles across two smoothly-worn flints, and gets almost no results from them. Finally the small boy logically concludes that the sharp edges and hardness of the stone have something to do with the matter. And there the small boy has to stop.

And yet he is very near the solution. Look at your flint again. It is pitted all over, you see, with depressions, as if all kinds of thumbs, from a baby's to a giant's, had made their marks there. And between these depressions the hard stone rises in sharp, thin ridges. A stone which breaks in this way is said to have conchoidal fracture. You need not use that word if it is warm weather.

One more point, and the mystery of the firereservoir is at an end. Nothing is made hotter by moving, but every moving body grows hotter if its motion is stopped. Friction means the checking of motion, and so friction always means heat. But why should flint become so hot when it is struck together, though other bodies do not? Other bodies do, if they are struck together with the same force. But the flint, because of its hardness and its conchoidal fracture, receives all the friction on those thin edges, on which all the motion of your arms is focused, as it were, so that the stone just at that place becomes hot enough to burn. Soft stones, however, like lime and shale, present broad, crumbling surfaces, and scatter the friction over so much surface that, though all of it becomes warmer, none of it becomes very hot.

Every time you see a flint hereafter, I want it to remind you of two classes of folks. People of one class are ready for any sport or any work, but excel in nothing because their life energies are spread over too large a surface. People of the other class direct their life energies along a few lines, and when you strike them there, they sparkle! The lesson of the flint is in one word: Concentration.

### XIV.

#### STALACTITES.

In the old days when I taught geology, my students did not go very far in the study before some member of the class was sure to bring me a long, finger-shaped piece of lime, often with a hole through the centre making a tube of it, with the query, "What is it?" Usually, unless they had themselves obtained the specimen, they were misled by the concentric layers of which it was composed, into the opinion that it was some sort of fossil, possibly a coral.

And then I had to tell them what a stalactite is, and how it grows.

The beginning of the stalactite, — of our little tube of stone, that is, — is nothing but a drop of water. It creeps cautiously through the limestone roof of the cave, and hangs there awhile before it decides to drop. While it hangs, the outer edges dry, and leave a little ring of limy deposit. That is the beginning of the stalactite,

and you see now why it is so often hollow. The part of the drop which falls to the floor of the cave dries, too, but has time to fill up its ring of lime to the centre. This is the beginning of the stalagmite, and the stalagmite, you see, is not hollow.

So drop after drop steals through the roof, and the little limy circle becomes a circular limy ridge, which grows longer and longer as the water creeps down to its tip. The water bathes its outside as well, and so another layer is formed, and the tube grows in thickness as well as in length. So, too, other layers are added to the stalagmite below, which rises from the cave to meet the descending finger, though of course as the stalagmite is so spread out it grows more slowly, and the meeting place is much more than half way down.

Have you ever been in a cave to note the curious way in which the stalactites hang in long lines from the ceiling, until, spreading laterally, they join each other in great, limy sheets, which fall gracefully down to meet a solid stalagmitic ridge, leaving, perchance, just a foot of space through which you must crawl to get into the farthest part of the cave? And have you ever

thought why the stalactites are formed in these long rows? It is simply because the ceiling is cracked here and there, and it is through these cracks, of course, that the lime-depositing water chiefly oozes.

I cannot think of these great cave rooms, draped with their spectral white curtains, without being led to think of that most mysterious cave in all this world — the one which is roofed in by your skull and mine, topped with its fairy forestry of hair. What wonderful stalactites are growing there, as down through the brain-roof filter thoughts and feelings and influences in ceaseless droppings! Each thought makes its little ring of deposits. There are long lines of tendencies whereon the formations array themselves. Day and night the wizard work goes on, until almost before we know it our soul-cavern is hung with tapestry, beautiful or ugly, but lasting as time itself!

Yet there is a most delightful difference between the rock and us. The cave must take whatever water filters down to it; our cavern can reject any current it please. And besides, the lime-roof must make its stalactite curtains all of lime, white and ghastly. It cannot change the mineral. But our brain-roof may make charming transformations, and may get from its currents what it will. May God grant that in your soul-caverns are growing curtains of chalcedony and alabaster, decked with the sweetest colors, and starred with the fairest crystals!

# XV.

#### ITACOLUMITE MEN.

In my teaching days, I liked to exhibit to visitors the little geological cabinet belonging to our college, and there is one interesting specimen which I seldom forgot to show them. It is a piece of rock shaped like a large and very stout ferule, yellow in color, glittering and sheeny with specks of mica. Its chief component, however, is sand, and it might be thought a whetstone for some giant's scythe.

When the visitor took it in his hand he never failed to give an exclamation of surprise, for the stone proceeded to wriggle and bend in very uncanny fashion, almost as if alive. It will easily sway one inch for every ten of its length. The visitor was quite ready to believe me when I told him that strips of the stone are found which will bend into complete circles.

And why is this sort of sandstone so much more pliant than other kinds? Because, while

the ordinary rock is cemented with unyielding iron or lime or inelastic clay, in this the little quartz grains are united by minute plates of flexible mica. Scattered through the substance, therefore, are thousands of hidden hinges, each joint ready to bend its fraction of an inch.

Whence came it, and what is its name? It came from North Carolina, that wonderland of the mineralogist. But North Carolina is not responsible for its hard name, nor South Carolina, nor Georgia, nor the Ural Mountains, where, too, it is found. It is called Itacolumite from Mount Itacolumi, just north of Rio Janeiro, down in its Brazilian home. And there, too, sometimes in the stone, but chiefly in the gravel into which the stone is decomposed, men find the beautiful Brazilian diamonds. There is but one other rock, I believe, in which the King of Gems has ever been found.

What a mess such sandstone would make of a building into which it entered! Sagging lintels, swaying cornices, cracked windows, and falling walls! What a black-sheep it is in the stout, reliable family of sandstones!

And that leads me to remark in conclusion (it would be queer indeed if one could not twist a

moral out of such a very flexible stone!) that the world is full of Itacolumite men in sandstone positions — squirming, sagging, unreliable men, in places where the slightest yielding from the firm line of honor and of duty will mean sad fissures in the social structure, the final downfall of the peace and happiness of many men.

And diamonds? No, no! The likeness holds no longer. When an Itacolumite man gets into a place where honest, strong sandstone is needed, nothing bright and good can come of it; nothing but misery and collapse.

# XVI.

#### ALUMINIUM.

It is indeed strange that one of the commonest and the most serviceable of known metals should come so slowly into use. Aluminium makes up a large part of every mass of clay. There are immense quantities of it, therefore, all about us. It is the most versatile of metals. It is the "coming" metal; for, in the first place, it is very light, only one-third the weight of iron. How easy it will be to clean house when stoves are made of aluminium! How easily we can lift our bicycles when aluminium comes in!

Then, it is as facile as gold or silver. It can be drawn into fine wire. It can be hammered into thin plates. Moreover, it is a tough metal and cannot easily be broken. It will take a bright polish, as nickel will, but it will not rust easily, as nickel will. It has a pretty color, something like silver, but the white of egg will not tarnish it, as it will silver. It is resonant,

and bells can be made of it. It is not poisonous to mine or handle, as mercury, for instance, nor will acids act readily upon it, as on steel or iron. It is a sort of Jack-of-all-trades among the metals.

With all his good qualities, this Jack has one bad one, which heretofore has made a hermit of him. He is not obedient. He will not come when wanted, though Chemistry calls him with her strongest acids and her hottest fires. He is a shy and independent metal, and holds strenuously to his clay abiding-place.

For a century the wise men have failed to dislodge him, except with cost and difficulty; but the arts are growing more artful, and every year sees Jack less shy, and venturing from his clay hermitage with a more and more moderate bribe. To drop metaphor, aluminium is now manufactured by the ton, is sold at a cheap rate, and the time is not far distant when it will supplant, in a thousand common uses, all other metals.

I am tempted to a comparison. The religious world has always been eager to seek and use the gold and silver, the precious metal, of our human nature; such men as the Wesleys, Bunyan, à Kempis. The religious world has always ap-

preciated, too, its men of iron and steel, its Knoxes, its Cromwells. But not until lately has Christendom learned the value of the metal hidden in the common clay of human nature, and found out how to extract it. When the Endeavor societies, the Y. M. C. A.'s, the Sunday schools, the W. C. T. U.'s, the prayer meetings and all such agencies, have done their work, have brought into use the wonderfully versatile metal of our ordinary human clay, Christian processes and religious results will be transformed as thoroughly as the introduction of aluminium will transform the processes and results of the mechanic.

#### XVII.

#### BRICKS.

What is implied in the statement, "That man is a brick"? What is the difference between a man who is a brick and a man of common clay? How is common human clay to be changed into a human brick?

In the first place, a brick is a shapely, attractive fellow, while common human clay is formless and ugly. If you want to be a brick you must contrive to get into some "mould of form"; all the better if, as in the terra-cotta works, you get the stamp of some beautiful pattern. Your lives must be true to the square. Your surface must be smooth and pleasing to the eye. No boor is a brick.

Then, to be bricks you must fit yourselves to be of some use in the world; you must adapt yourselves to some niche. Did you ever hear it said of a man, "He's of no account, but he's a brick"? or of a woman, "She's stupid and lazy,

but she's a brick "? Brick is clay ready to do something, to wall in a home, to pave a walk, to support machinery. No aimless, namby-pamby man can be a brick.

Moreover, a brick must have some iron and sand in it; and a human brick must have a good supply of iron in his blood, and a fine stock of what the boys call "sand," but more dignified folks call "grit." A man with no will of his own, who promises one man to do one thing and then promises another man to do precisely the opposite, who praises you to your face and blames you to your back, who is a teetotaler with Deacon Jones and "takes a little something" with Bob Bleareye, will never be called a brick.

And finally, it takes fire to make bricks. O, you think that Greatheart, with his jolly face, his warm hands ready for any kindness, his strong feet swift on helpful errands, — you think that Greatheart is so cheery because he never knew sorrow and hardship. Nay, that's just why he is so sympathetic in your sorrow: because his own sorrow has been severe; that's just why he helps you so royally over the hard places: because he has traveled that way himself, and knows how painful it is. A man may be pleas-

ant, and all that, though he has had no strengthening, toughening trials. He will be like sundried clay. But to make brick,—hard, red, solid brick,—the clay must to the kiln.

Just one point further. The clay out on Palmer's Hill, however much it might like to become bricks, must remain where it is, and trust to luck to draw thither the brick-makers. But human clay, if it wants to become attractive and useful, constant and strong, — if, in short, it wants to be a brick, — needs only to ask his Maker, and yield obedience to His directing hands. It is possible for any one to become a brick.

# XVIII.

# PHOSPHORESCENCE.

Take a large diamond — if you are so fortunate as to possess one — a diamond that has been soaking in the sunlight all the morning. Close the shutters, and make the room perfectly dark. Now what do you see? A diamond on fire! How it glows and shines!

And while we are in the dark, tell me the time by my watch. Impossible? No; it is precisely sixteen and a third minutes past ten. I am not guessing, as you may see for yourself. And now you want to know how I got my watch-hands and the fingers on the face to shine in the dark? Well, open the shutters; we'll let in a little light on the subject.

You are familiar with the term phosphorescence. It means, in English equivalents, fire-ferrying, light-bearing. There are certain substances, about which your encyclopædia will tell you, that are nature's lamps, shining in the dark. Such a

substance is the diamond, and the luminous paint I have used on my watch.

In some way or other these substances store up the light vibrations during the day, and give them out again during the night. It is one of nature's greatest marvels, — the quickness with which these substances gather immense quantities of light, and the fulness and long continuance of its emission.

That's enough about mineral phosphorescence, because I have something vastly more interesting to discuss, — human phosphorescence. Have you ever seen a phosphorescent man or woman? No? Then look about you the next dark night. I do not mean our night of hours, but some night of sorrow, of danger, of doubt, of disappointment, of death. I am greatly mistaken if you will not see some women or some men all aglow with spiritual phosphorescence. Their eyes shine, their souls gleam with pure fire through their bodies, the very air about them seems bright, in the blackest centre of the darkness.

It is as easy to be happy in prosperity as to be bright in the sunshine. "'Tis the natural way of living." Smiles and hearty words and kindly deeds come instinctively and joyously. God seems very near, and sorrow seems an impossible event. Nevertheless, from some people all this joyousness slips off at the touch of sorrow as light slips from a lump of coal when it is thrown into a dark coal-bin. The joyousness has not even gone skin-deep. Our phosphorescent folks, on the contrary, absorb happiness, storing it up against the times of grief. And it is wonderful how much joy they can pack away in their reservoirs in a little while, and how evenly and bravely, through long, dreary darknesses, they can deal it out again.

"How about rotten wood?" you may ask. Ah, that's a different story! When decaying wood shines in the dark, it shines not because it has been in the light and remembers it, but because it is decaying. For decay is only a slow burning. That is not why Christians shine in the dark, — because they are rotten at the core.

No, no! When a man is soundest, healthiest, most alive, — then he is most phosphorescent. Then darkness has least authority over him, because he has held companionship with the sunshine. You may now be revelling in happiness, but let me warn you: the dark hours are coming,

surely as the world turns around. Become phosphorescent! Become phosphorescent! How to do it? A higher Teacher must tell you,—the Teacher who is the Light of the world.

#### XIX.

# GOLD-FOIL FOLKS AND PUTTY PEOPLE.

Have you ever watched the interesting process of manufacturing gold-leaf? The wonderful metal is first made into a block of pure gold, which is rolled out by steel rollers into thin ribbons. Then the gold-beater takes it, cuts it up into little squares, and makes a pile of these, inserting between each pair a piece of gold-beater's skin, — a tough, thin, and uniform substance made of the intestines of animals.

With a mallet then he carefully pounds upon all parts of the surface, until the gold is everywhere spread out to the exact size of the sheets of gold-beater's skin. Then these squares of gold-leaf are quartered and placed once again between more layers of skin, and beaten out till they cover them. And this process is repeated again and again.

It is absolutely amazing to see how far this process can be carried. The gold seems actually

to be multiplied, so far does its pliant mass extend. A single grain of gold may thus be spread over a surface of fifty-six square inches. If you took enough of these very thin leaves to make a book one inch thick, how many do you suppose you would need? No fewer than 282,000!

And yet each of these leaves is as evidently gold as the cube of gold from which it was manufactured. Each of them, if applied to any metallic surface, would cover it so completely as to make it appear pure gold.

You have heard of people who could "spread themselves out thin"; I wonder if any can spread themselves out as thin as this! And yet there are folks I have known who actually rival gold in their ability to make their knowledge and skill cover a great deal of ground. They seem capable of writing on any subject, prose or poetry, with equal facility. They can make extemporaneous speeches as good as other men's labored orations. They dash off a picture as others might dash off a postal card. They shine in all companies, and they can cook a dinner as well as they can play on the piano. And to everything of their long list of accomplishments

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they communicate their individuality as thoroughly as the gold manifests itself in every square inch of the gold-leaf.

But you and I are putty people. We have made up our minds to that. Roll us and pound us as they may, they can make us cover only a few square inches. If they try to do more with us, we get cracked, and become altogether useless. We can stop one little crack in this world; we can hold in one pane of glass through which may shine the light of truth and beauty; we can do this one thing well, and that is all there is of it. We cannot shine ourselves.

Now, brother and sister putty people, let me introduce you to the great man,—the man of golden brain and skill, if ever there was one,—who yet said of his life-work: "This one thing I do"; let me introduce you to him, and to his firm conviction that God wants of us only one thing. After all, the gold-leaf does only one thing,—it colors and gilds surfaces. It does this in a great many places, to be sure, and for a great many substances, so that, unless you think carefully, you will conclude that it itself has become something vastly greater than it really is;

but, after all, beneath its depth of 282000 of an inch, you will find something else that is not gold-leaf; and God can see deeper than 282000 of an inch.

God wants us to do one thing, — the one thing He has given us to do, — only that. If we "cover the ground" of His will for us, whether as glittering, showy gold-leaf or as homely putty, we are covering the ground on which shall be built the only monument the ages can give us — the blessed monument on which is inscribed in living letters this saying, "Well done, thou good and faithful servant. Thou hast been faithful in a few things, — gold-leaf or putty, it matters not, — I will make thee ruler over many things. Enter thou, gold-leaf folks and putty people, into the joy of thy Lord."

#### XX.

#### BE AN ARTESIAN WELL.

The subject of artesian wells has always had a fascination for me. These long bores into the earth reach down into a region of so much mystery, up from which comes rushing and swirling so much of blessing for mankind! When the water of an artesian well is first tapped, it often flies up in a great fountain high into the air, and ever thereafter it overflows its tube in a constant and ambitious stream. These wells are so different from the ordinary sluggish affair into whose sulky and inert depths we must painfully lower our buckets, to get by littles what the artesian well so freely and lavishly bestows!

What causes the difference? This: The ordinary well is supplied with water from a region of only moderate extent. To an artesian well, on the contrary, flows the rainfall of a large area. Moreover, the water of an ordinary well moves very likely along rock layers almost horizontal,

and so flows and seeps very quietly into its lowly reservoir. On the contrary, the artesian well is situated at the lowest point of some vast subterranean rock-trough hundreds of square miles in extent. On the upper portions of this trough, on either side, falls the rain. It soaks down through the porous rock till it meets impervious strata, upon and beneath which it makes its way, ever increasing in volume, until it reaches the bottom of the subterranean depression, where it meets the little tube along which it is glad to rush, with all the momentum of its downward fall, up to the light again.

Now I want to be an artesian well, rather than a surface spring well. That is, I want to be a man whose character has fulness and force enough to overflow without a chain-pump. You have met these chain-pump people? They know something, only — you have to probe for it. They have noble feelings and emotions, only — these feelings and emotions never come to the surface. They are willing to do things, — if you will only tell them what to do. They are glad to entertain you, — if you will only tell them how you would like to be entertained. There is something to them, — only you always have to

draw them out. Those are the chain-pump people.

But the artesian-well man is original, inventive, moves of his own accord, suggests plans and sets himself as well as others to carrying them out, starts the conversational ball a-rolling and keeps it a-going, thinks his own thoughts and helps other people to think their own, knows how to lead and also how to assist the leader by active following; in short, has force and fulness, overflows, and does not need to be dipped into.

And how to become this sort of man? Learn the lesson from nature. The human, like the rock, artesian well needs three things. They are these:

- I. He needs wide sources of supply.
- 2. He needs a restraining conduit.
- 3. He needs a narrow orifice.

As to the first, he needs to read widely, observe much, think much. He needs also to learn much from other men by conversation. He needs to feel much and sympathize deeply. He needs as large an experience as is possible for him.

As to the second, he needs hard layers of patience, determination, common sense, and in-

dustry to collect into some usable channel all this diversified and widely garnered information and thought and feeling.

As to the third, he needs an open mouth, yet only one; that is, he needs to provide some central purpose to which all this ingathering shall be directed and upon which it shall be eagerly and lavishly spent. This will be his life-work, whatever he decides that God wants him to do.

It is not easy to be an artesian well, and that is why the surface spring wells are so common and the artesian wells so rare; but that is the kind of well I mean to be, just the same. Don't you?

#### XXI.

# Focusing One's Self on Things.

Did you ever consider the philosophy of glassengraving? The process is a simple one. The sheet of glass to be engraved is covered with a piece of spongy paper, in which has been cut out the design to be imprinted on the glass; or else, for nicer work, a layer of a waxy substance is spread over the glass, and the design prepared for engraving by cutting this wax away with a sharp-pointed instrument, leaving the glass exposed where it is to be engraved, but everywhere else covered with the wax or the paper.

Then in a strong current of air a stream of sharp-edged sand is directed against the glass, and in a wonderfully brief space of time the paper may be removed or the wax scraped off, showing the design beautifully etched upon the flinty glass.

"Now, why is it," you are ready to ask, "that the sharp sand cuts the hard glass while it does not at all affect the paper or the wax?" It is because the sharp edge of the sand, striking the hard glass, concentrates on one point or little line all the force that was in the motion of that piece of sand; but when the same edge strikes against the yielding substance of the paper or the wax, it is at once wrapped around, as it were, and delivers its blow upon a surface instead of upon a point or an edge. The force of the sand's momentum is therefore spread over a wide space, and does no execution.

If this is clear, you will understand what I mean when I urge you to learn the art of focusing yourself on things. Man's nature, you know, is triangular, — physical, mental, spiritual. He is like a three-edged grain of sand. When a rightly ordered man directs himself in the vast current of airy life against any object, whether he strike with his mental or physical or spiritual edge, that edge has back of it the entire force of the man. All of his body is trained to give vigor to his mind, and all of his mind to give intelligence to his body, and all of his spirit to give cheerful purpose to both. He strikes whatever he strikes as a unit. He knows how to focus himself.

Men, however, who, like the majority of us, are not well ordered, produce no more effect upon the hard substance of this world than would be produced by a bit of chalk blown against the glass in our sand-blast. The soft edges of the chalk grain would simply flatten themselves out upon the glass and deliver the blow upon a score of lines instead of one, so that the force would be fruitlessly dissipated.

These chalky men, when they want to do anything with their minds, are twisting their feet and wrinkling their foreheads and twitching their muscles and twirling their thumbs at the same time. When they want to do anything with their bodies, their imagination hinders the work with all sorts of disquieting fancies, or their attention is distracted by a thousand disconnected thoughts, or their will wavers and does not compel perseverance and courage. Again, when they would engage the spiritual portion of themselves in any noble endeavor, as prayer, both body and mind introduce confusions and dissipate attention in a way too familiar to all of us to need description.

Accept my new signification of a common slang term, and put some sand in yourselves!

Do fewer things, if need be, but in the doing of them to enlist all the forces God has given you that you will produce upon his world some lasting impression for good. Get reserves of character or of force, and learn how to concentrate them upon worthy objects, not frittering them away here and there on trifles. Do not be satisfied with a thought until you have put the whole force of your spirit into it, and the entire vigor of a healthy body as well. Do not be satisfied with your muscles until they are governed by a wise mind and trustful spirit. Do not be satisfied with your prayers till they are fired with the strength of an active, clear brain, and invigorated by rich blood and stout muscles. In short, be a whole man, a whole woman, and put the whole of yourself into all your deeds. Get some sand in you.

# XXII.

## NATURAL GAS.

Geologists were greatly surprised, a few years ago, by the revelation of the large stores of natural gas confined in the vast rock caverns of the earth. But if this discovery was a geological wonder, it was even more an economic revolution. The beautiful fuel transformed black and sooty cities into cities bright and clean, and introduced into many a factory better and cheaper methods, and introduced into many a home a wonderfully convenient mode of heating and cooking.

But at first the inexperience of men led to an enormous waste of this natural gas. In many a town I have seen great streams of lighted gas pouring from roaring standpipes, and sending up all night a bright glare over the whole neighborhood. Its owners were entirely careless of it, and any one could use all he wished for a small sum. It was in vain that geologists warned men

of the folly of this. People laughed in derision, and told the geologists that since they had not predicted the discovery of natural gas, they would not believe them when they predicted the end of its flow.

But just the same, the supply, in most localities, has begun to show a serious falling off, and the pressure in the majority of wells is only a small part of what it was at first. The prices have gone up, and it is perfectly evident that the supply of this convenient fuel will not last forever. When the wells give out entirely, we cannot believe that men will go back to dirty and cumbrous coal again; but the gas they will use will not be natural gas, it will be the more costly artificial gas.

But why do these gas-wells give out? Because, when a well is tapped, men are drawing with spendthrift hand upon the slow accumulations of centuries and ages. This natural gas is the result of the tedious decomposition of vast amounts of marine plants shut up in the rock strata. Two conditions are necessary for its accumulation. The rock must contain the carbonaceous matter, and there must be an imper-

vious layer shaped like an inverted bowl or platter, in which the gas, as it rises, may be caught, and thus accumulated.

You will see at once the difference between a well of natural gas and a well of water. In the well of water, the impervious layer is shaped like a platter that is not inverted. The well of water is fed from above, and the gas-well is fed from below. The well of water never fails, because it is fed by the unfailing clouds.

Did you ever — let me ask in closing — hear people speak about such and such men as being "regular gas-bags"? A man is called a gas-bag when he is flashy, brilliant, attractive, but doesn't hold out. It would be better, in the light of modern discovery, to call such a man a gas-well.

He is good for a holiday illumination, but is not good for a steady light. Take him for a single sermon, or for a Fourth of July oration, or for an hour's conversation, or for a day's work, and you will think him one of the brightest men you have ever met. But the second sermon drags, and the second oration in every sentence says "ditto" to the first, and the next

hour's conversation puts one to sleep, and at the next day's work he is "tired." The well is blown out.

The reason for this is, that the gas-well man is living upon the past. The strata of his life face inward, bend downward. He relies entirely on a few scraps of information picked up long ago, or upon a few bits of smartness he acquired in his youth.

On the contrary, the men that last have lifestrata facing upward. They draw their supply from above, and that supply never fails. These men are like the wells of living water, ceaselessly getting, and so constantly giving. It is a serious question, therefore, for each of us: "How are my strata curved?"

## XXIII.

# OPALESCENT FOLKS.

In ancient times, before men learned how to cut the diamond, the opal was the most fashionable stone, most highly prized, and most costly. There are not lacking men in modern times who still hold to this ancient estimate of that beautiful stone.

No jewel, in all the range of precious stones, displays a finer array of splendid colors, — the brightest tints of the rainbow, softened as if seen through a silver haze. As you look at it from different angles, or as you turn the stone, there come glimpses of the richest azure, the deepest emerald, the most fiery ruby, yet all of them mellowed by the opal's own charm, and very different from the dazzling brilliancy of the diamond and sapphire.

Whence comes this beautiful play of color, that takes its name from the opal, and is called "opalescence"? It is not in the stone. Hold

the opal up to the light, and it has nothing but a yellowish tinge. Besides, the colors shift and vary, as the stone is changed in position. Let me tell you the secret of the opal's beauty.

The stone is filled with fissures, — minute rifts in its substance, too small to be seen by the eye, yet not too fine to be seen by the light. These fissures catch up the light, beat it back and forth between their sides, and break it up into its constituent colors, very much as a prism would do. And so the stone, out of what might seem to be a flaw or blemish, draws its wonderful crown of beauty.

Have you ever seen opalescent men and women? They are all around you, shining with loveliness in many a Christian home. They are men and women whose lives are fissured with poverty, seamed with sickness, cleft with some deformity, shattered by blindness, or deafness, or ugliness; and yet these opalescent Christians make the very shattering of their body, and the flaws in their fortune, a trap for God's sunlight. They catch in these clefts of misfortune the rays that come from heaven. They toss them back and forth and from side to side of their seamed and fissured lives, and lo! we see them glowing

with a beauty far more wonderful than any opal of earth, or any rainbow of heaven.

A stone cannot make an opal of itself. A bit of clay, no matter how much it is shattered, will never glow with rainbow colors. But men and women are higher than the stones of the earth, and God has given each one of us the power of transforming our defects and misfortunes into beauty and grace, so that we, too, may become opalescent.

#### XXIV.

#### CARE FOR THE UPLANDS.

I have just been reading about the way in which some of the Southern farm lands are being changed into deserts. Through the Carolinas is a broad strip of hilly land sloping eastward from the Appalachians. The soil here is not bound together by sod, and its richness is easily washed out, down into the valleys.

The farmers are said usually to plough up and down the slopes in the natural direction of drainage, instead of ploughing across them to check the currents of water, and hold the fertility of the soil. When in this way one piece of land is rendered barren, fresh portions of the rich Appalachian forests are cut and burned away, only to undergo the same process of waste and ruin.

There are said to be, in the Carolinas, plantations of a thousand acres in which there are five hundred acres of gullies, produced by this wasteful system of farming.

More than that, though the valleys are gaining in fertility at the expense of the uplands, the same process which ruins the hill-country is ruining the lowlands, for the river-beds are being filled up, and the slightest rise of water produces disastrous floods. Competent authorities declare that it will require a thousand years of rest before the hard clay thus exposed in the uplands can be covered again with a useful soil.

Accompanying this foolish process is a constant diminution of the population, so that now there are only about three-fifths as many people in this region as formerly.

Very few of us, however, have a right to point a finger at these Carolina farmers. What they are doing in material affairs, most of us are doing in the vastly more important fields of the spirit.

We cultivate the uplands of the soul, to be sure; but how many of us do it only for immediate returns! We meditate on higher things, we pray and read the Bible, to be sure; but how often it is only to gain strength for the worries and tasks of the day, with slight thought, or no thought at all, for the future!

Not, of course, that I would for a moment depreciate this, as far as it goes. But there is a

spiritual reservoir which requires looking after, as well as the daily watering of the soil and the gathering of the spiritual food for twenty-four hours.

It is just as necessary to see to the permanent enriching of the fields of the spirit as of the farmers' fields of clay or gravel. There is such a thing as washing all the fertility of the soul's uplands into the lowlands of material pursuits. Let each one ask himself earnestly the question: "Am I living from hand to mouth in spiritual matters, or is my soul growing richer and stronger all the time?"

The farmer now and then gives a crop to the soil, raises a field of clover merely to turn it under with the plough. After the same fashion, do I now and then give a day to the spirit for the sake of the spirit purely? Do I spend an hour in meditation, solely through love of communion with God? Do I read a chapter, or a dozen chapters, in the Bible now and then,—not for immediate profit, or present-day inspiration, but for increased wisdom and spiritual enrichment?

Am I laying up stores of faith, and knowledge of God's providence, and loving acquaintance

with Him, far more than is needed for the day, patiently and leisurely, not fretted by the passing worries or harassed by the hurry of business?

If this is true of you and of me, then, and then only, we need not fear the tempests of life. The storms may beat upon us, but the uplands of our souls will not be washed barren.

#### XXV.

#### SET IN THEIR WAYS.

Every one knows what plaster of Paris is, but how many know just how it works? This strange substance is made from gypsum. Gypsum is a mineral made up of sulphate of lime and water. It is a beautiful mineral, usually white, and when it is burned, and the water is driven off, it falls into a beautiful white powder known as plaster of Paris.

When this powder is mixed with water it forms a paste, which, for a few minutes, can be moulded into any desired shape. The operator, however, must be quick, for the sulphate of lime, as soon as it is thoroughly united with the water, flashes back into gypsum again, and becomes solid as before. It is "set."

I often think of this plaster of Paris when I see people who are what is known as "set in their ways"! Very often they are poor souls that have been fired in the furnace of affliction

until they have all dropped to powder. They eagerly grasp at the first water they meet, and drink it. Whatever it is, — and it may be a prejudice, a false opinion, a misstatement, a fallacious argument, a mischievous theory, — whatever it is, they speedily accept it, incorporate themselves with it, and whatever form it bids them take, into that they harden, and forever.

Now, plaster of Paris is useful, and this plaster of Paris quality in your minds will be useful. I would not give much for a man that had not the ability to become, on occasion, set in his ways. Such a man would be as unstable as the water outside of the gypsum, and could no more receive the permanent impress of anything good and noble than the water could.

But this useful quality is a dangerous one also! Luckily for it, plaster of Paris has no feeling. If it had, what sorrow would possess it at the discovery, perchance, that it had "set" into the shape of some disgusting image, unholy and corrupting, and must retain that image forever! Alas! many a plaster-of-Paris man has awaked ere this to just such a fearful discovery.

We can avoid it, though the poor stone can-

not. We can choose the time of our metamorphosis, and the shape into which we shall harden. We can yield ourselves trustfully to the great Artist, asking of Him the water of life and mingling it with our earth dust, sure that the change it will work will be only to permanent purity, and to the beauty and strength that will last forever.

#### XXVI.

#### GARNET GIRLS.

A kind friend gave me, the other day, a little bit of solid flame, which had been chipped from a rocky ledge in far-off Alaska. It is a crystal, about one inch long, with some two dozen faces of regular shape. It is that wonderful compound of quartz and iron and the aluminium of common clay which is called a garnet, — the pomegranate stone, because it looks like the pomegranate seed.

Its color appears to be a deep reddish black, but as you turn it over listlessly, you soon see that something marvelous lies beneath the dull surface. In the garnet's interior, under this angle as I am now looking at it, lies a crumpled plane of orange light with a deep blue square at one corner. Below that face runs a single vein of the most vivid scarlet imaginable. I turn it to a different light, and all this projecting pyramid flashes out with wine-hued fire. In one

part lies a nest of rubies, in one a tangle of pink flakes. The most sullen portions of the crystal, seen at the right angle, glow with the most superb colors. And I often plunge below the stupid surface of my garnet, exploring, fascinated, its flame-caverns, and meeting rich color-treasures at every turn.

It may be a foolish fancy of mine, but, do you know, I can never look at that masked-battery of beauty without thinking of some garnet maidens I have known. Dull girls they were, to the careless eye. Irregular features and poor complexions and coarse hands they doubtless owned. They were not skilled in repartee. Yet daily, as their lives turned before me, beautiful surprises would flash out. A rich red love would kindle the rude features. A golden reverence would light up the small, gray eyes. Some deed of tender sacrifice would transform the skin to softest pink and white. Pale lips would glow like rubies with sweet words. And as I came to know the spirit of light that dwelt within the dull bodies, I would call them my garnet girls.

Jewelers sometimes take these deep-colored garnets and hollow them out, fill them with silver or back them with a silver plate, so that all their beauty lies on the outside, ready for the passing glance. No more mystery; no more charm of discovery, and delight of sweet surprises. Garnet Girls, watch lest that sad thing happen to you! Hollow-headed, shallow-hearted women with a silver backing may be more admired by the careless and the thoughtless, but God is the best artist to fashion a human gem, and nothing in all of fashion's show-cases is half so beautiful as His garnet girls!

#### XXVII.

#### PLACER MINING.

Have you read Mark Twain's entertaining book of Western experiences, called "Roughing It"? To me, one of the most interesting portions of that book is his description of placer mining. When I read it, it made me almost wish that I had a prospecting-pan in my hand, and was free to roam over the gold hills.

Placer mining is accomplished in different ways, according as the miner is at work in a valley or among the hills, but the most fascinating is the investigation of the hill placer. The miner, getting water from a neighboring spring in which to wash the auriferous sands, begins operations along the base of the hill. If he finds the gold in promising quantities, he works toward the left, and then toward the right, until he discovers in either direction a place where the sand has no gold in it.

This being found, he moves farther up the hill,

and pans the sand again toward the left and toward the right. The extent of the auriferous sand will be found to be more and more limited. So he proceeds upward, along converging lines, until he reaches the "pocket," the central mass of gold ore from which the widening layers of auriferous sand have been washed down. It is in these pockets that the magnificent nuggets of gold have been found, — nuggets of prodigious size and of immense value.

The placer miner, you see, did not waste his time at the foot of the hill. He simply allowed the gold-bearing sand to be his guide, and to direct him to the rich source of it all.

Gold of another kind may be mined for precisely after this fashion. The right study of literature, for instance, is nothing but a placer mining. Here and there, everywhere through the writings of Englishmen, are found bits of Shakespeare gold, — sparkling quotations, striking allusions, and shrewd comments on the works of the greatest of poets. Don't stop at the foot of the hill, but trace up the gold, and be satisfied with nothing less than the central pocket. So it is with Homer. So it is with Dante and with Goethe. So it is with all the

world's great writers. Do not be taken with the glitter of quotations or with the charm of essays that are merely about these great ones. Don't stop with the gold dust, but hunt down the nuggets.

In science, too, it is the same. The inventions and discoveries, and a large part of the vaunted marvels, of modern science, are directly traceable, along converging lines, to great names such as Newton and Bacon, Franklin and Darwin, Cuvier and Linnæus and Aristotle. Do not be satisfied with mere allusions to these Columbuses of science, or with a knowledge of the thin and immensely scattered layer which is the result of their thought in modern lives, but trace it all back to the great original thinkers.

And so it is also in history. Back of all the new names and so-called new ideas of modern politics and social science, are a few great names to which the most of it may be traced, as the gold dust to the pocket of the placer. Such heroes of history as Washington and Cromwell, William of Orange and Pericles, Clisthenes and Plato,—do not let the turmoil and the clamor of these busy times hold you away from a knowl-

edge of these giant originators of action and principle.

But especially in religious matters must we all be placer miners. Don't play about the foot of this great mountain peak. Don't stop too long planning over the sands of religious essays and theological books, however rich in gold they may be. Back of them all, the source of them all, there is one great Book and one great Teacher. That Book is the Bible, and that Teacher is Christ. More necessary is it here than anywhere else that our placer mining should be carried straight to the centre.



# PLANT PREACH-MENTS



## PLANT PREACHMENTS

#### XXVIII.

DEEP PLANTING AND SHALLOW.

I greatly enjoy my little flower garden, though I am not at all proud of it. I choose to think that the fact that it is situated on a gravel bank, and not any lack of skill or industry in me, is responsible for my many horticultural failures. Be that as it may, however, it is certain that my first failure was due to no poorness of soil.

I planted my seeds with care and with eager anticipation, and waited impatiently for them to come up. Alas, scarcely a plant pushed its green head above the earth! I had used some sixty packages of seeds. Hardly an equivalent of one package rewarded my toil.

It was an observant neighbor that afterward let me into the secret of my want of success. "I could not help being amused," said he politely, "when I saw you putting in those seeds. I guess you never planted flower seed before" (which I had not). "Why," said he with a chuckle, "you put in the pansies, it must have been four inches deep; and the poppy seeds were three inches down, if they were a hair's breadth; and the portulacas you sowed as if they were potatoes." That was the case. Those fine, delicate seeds, that should have been dropped on the surface and lightly raked in, had been buried so deep that China was far more likely to hear of them than Massachusetts.

On another occasion I hired a man to plant my beans. I knew something about gardening by that time, but this man evidently knew very little, for he planted the beans so near the surface that, when the fleshy mass began to swell and to push out its fat, green leaflets and pudgy roots, and when the rain added to the effect of this upthrust by washing away the soil from the ridge, it was not long before every bean lay in mute despair upon the surface, a ready prey to the hot summer sun.

As I make my garden bear me a spiritual crop,

though it will not afford a material one, I have learned a lesson from these and similar experiences. I have learned that, just as the seeds of plants need some of them deep sowing and some of them shallow, so do the seeds of action and of character. There are graces to be gained from long hours of prayer and meditation on sacred themes, from the quiet hours of life. Whoso leaves out of his living such deep sowing, will fail of the most beautiful plants and the most fruitful blossoms. And there are other graces born of shallow sowing, born of proper recreation, born of gay exercises, born of pleasant social intercourse, the merry laugh, the cheery smile. These shallow seeds bear their blossoms and their fruit, fair in their way and blessed as the others, because both are made by God, though they are so vastly different, and neither can be left out of your heart garden without marring its perfect beauty.

But when, as some do, you give deep planting to the shallow seeds of character and shallow planting to the deep seeds, when you rattle off your prayers as if they were a fling at quoits, and become absorbed in tennis as if it were an affair

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of eternity, then you are making the mistakes that were made in my garden. Then neither the deep seeds nor the shallow seeds will ever find leaf and blossom. Then it will not be long before your heart garden is bare and desolate.

#### XXIX.

## BEDS, OR WALKS?

Last year I had in my flower-garden a fine bed of coreopsis. I like this bright little yellow friend, and watched eagerly for its appearance this year; but not a plant did I see breaking the soil of that bed. One day, however, my attention was attracted to a rather unusual weed springing up in the walks near by. It had a delicate leaf, and proved to be my truant coreopsis. There were my plants by the hundred, running wild in the hard-packed walks, but not one of them in the bed where they belonged.

It was the same with my corn-flowers. For several years past I have delighted in a magnificent patch of this exquisite German beauty, that, with its red, white and blue, should be an American beauty, but is not. They had sowed themselves, and had filled their couple of square yards with a lovely mass of tender colors. This year—only a few weak plants. But far and near, to

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the very verge of the garden, in the walks, among the bulbs, popping up by hundreds among my freshly hoed sweet peas, behold the dainty lady corn-flower, become all of a sudden a very hoiden! Those plants, in fine, were none of them where they should be, but were everywhere where they should not be.

And there are lots of human beings just like them. Folks that would rather grow almost anywhere except where God wants them to grow. Folks that want to be independent. Folks that pride themselves on being original. God may have set them in a home and told them to bloom there, and make it bright and sunny and fragrant. But no! they must post off to study elocution and hunt up a "career." God has placed them in a church, a Sunday school, a Christian Endeavor society, and told them to grow there, building upon the foundations laid by centuries of earnest labor and prayers, raising one course higher that great temple of the living God, which is the Church of the ages. But no; here is a pretty little charity that needs assistance, here is a novel scheme for applying the doctrine of the brotherhood of man, a new society, a new club, a new motto, a new badge, a

new set of symbols and catchwords; and off they fly from the orderly beds and into the walks beyond.

Now, these are all good causes, no doubt; but there is only one thing that is to be first. After Christ's church has had its own, what is left of time and strength and money and interest may go where you will. But your own home and church and Sunday school and Christian Endeavor society first, just as Christ would have his disciples begin at Jerusalem and Judæa. And I am not an old fogy in this; not a bit of it. The advice is simply a bit of practical gardening, and if you follow it, you will soon find yourself in the midst of a very paradise, a garden of the Lord.

#### XXX.

#### My Cucumbers.

One spring I planted a lot of cucumber seeds in my garden, taking great pains with the planting, and enriching the soil so that I thought it was a regular cucumber paradise. Then I waited for the flat, green leaves, but waited, for the most part, in vain, so few came to reward my labors. And the few that came grew so poorly, and formed so few buds and blossoms, that I gave up that corner of the garden in disgust, consigning it to weeds.

But one day in later summer I happened to walk through those weeds, and my foot stumbled on something. It was an enormous cucumber. I looked further. Why, it was a cucumber Klondike! There they lay by the score, great yellow fellows, not quite as large as pumpkins, though they appeared as large to my delighted eyes. They were all long past the

stage of eating, and were good for nothing but seed, and I had seed enough for the town.

And so I have learned to trust more to seeds and soil, to God's sunshine and His rain. Whenever I plant a good deed or a worthy purpose, whenever in any right attempt I do my best, I remember that God is back of the endeavor. I do not let that garden patch go to weeds. Though for weeks no plant appears, or on the plant no hint of fruitage, I do not leave it unvisited, and I do not abate my confident expectation. It is God's seed now, and not my own. That bit of my living has been handed over to the great Gardener of the universe. And in His hands it is safe and growing.

#### XXXI.

#### THIN 'EM OUT.

Last spring I sowed some pansy seed, and I sowed it thick, too. Pansies never did do well for me, but this time I got ready to shout, "Victory!" for the seeds, after keeping me in suspense a long time, came up beautifully. They came up so thick that I counted my future pansy blossoms by the thousand. Just the same thing was true of some portulaca I sowed at the same time. I am very fond of the bright, frank faces of this flower, and I hoped from the number of delicate purple-brown shoots that came out of the ground that I should have a gorgeous array of them.

But, alas! I was so eager for an abundance of flowers that I lost my chance of any. The portulacas I didn't dare transplant, and the pansies I put off transplanting, and of both I was too greedy to uproot one, so that, though they grew and flourished while the tiny little roots had room enough, they soon began to crowd upon

One by one they died, and now, of all my splendid promise of royal pansies, scarcely a plant remains to tell the tale, while my portulacas, though they did better, are scrawny, spindling affairs, bearing nowhere near as many flowers as a bare half-dozen plants in another part of the garden that had room to grow and do their best.

Now, this bungling experience of mine would be of no interest, and not worth mentioning here, if, in our larger lives, we were not all of us constantly making the same mistake, especially, it is commonly agreed, in these busy closing days of the nineteenth century. We are planting more seeds than the ground has room for, and then we are refusing, when the plants come up, to thin them out. We begin several courses of reading, but finish none. We join several societies with diverse aims, but miss half the meetings, and finally in disgust resign from all of them in a bunch. We dabble in piano-playing and violin-playing and banjo-playing, but become proficient in none. We play a little tennis and a little golf and a little chess and a little crokinole, but we don't become an expert at anything, or learn to play anything well enough to keep up our interest in it. We are for learning shorthand, and French, and law by correspondence, and modern history by the Chautauqua system, and we join a class in current topics, and we take out books from the library on the cards of all the members of the family, but, some way, nothing comes to anything. Now that is a fair abstract of the life of many a man and woman in this year of grace. Too many seeds planted, too little room for them to grow in.

Friends, heed the good Book, and before you begin to build a tower, count the cost. Your new plans will take time, thought, and money. Can you reasonably count on enough of these to do them justice? Do they interfere with more worthy plans already undertaken? Just because a thing is good, is no reason why it is good for you. Give your life an aim, a bent of its own, and then bring into harmony with that bent everything in your life, rigorously excluding all besides. That is a large part of the secret of successful living.

Take this little parable to heart. Examine your lives in the light of it; and if your portulacas and pansies are coming up too thick, be sternly sensible, and thin 'em out.

#### XXXII.

#### My WILD GARDEN.

Have you ever bought a package of flowerseeds labelled "Wild Garden"? I tried it once. The package was a fat twenty-five-cent one, and seemed to my hopeful fancy to contain unlimited possibilities of bloom. The operation of planting these seeds was like a trip into Alice's Wonderland. Never were seeds more curiously jumbled together. There were the fine dust of the poppy-seeds and the great cannon-balls that meant canna lilies. There were the little, black, shiny sweet-william seeds, and the big, hollow husks of the nasturtiums. There were the plain, straight-forward seeds of the balsam, and the tufted seeds of the corn-flower; the long verbena seeds, and the chaff-like zinnias, the pansy dots, the morning-glory globes, - all these, and five times as many more equally diverse.

As I planted this strange and motley array, I could not help wondering how it could possibly

prove a Barnum's happy family. Here was the poppy, that should have been merely dusted on the top of the ground, lying next door to the canna-lily seed that needed to be deeply buried. Here was a vine seed next to a groundling, and the delicate forget-me-not seed next to what would produce a great, sprawling four-o'clock. How could Dame Nature take care of them all?

Well, it turned out a fine illustration of the famous "struggle for existence." The seeds that most quickly germinated chiefly won the day, leaving their more sluggish brethren no chance at all, except here and there where a late-comer was so very stout and sturdy, like a marigold, for instance, as to bear down all opposition. The little plants shrivelled away at the feet of the big ones. The strong-rooted plants dried up the delicate-rooted ones. The big-leaved plants overshadowed the slender-leaved ones. Altogether, very few of the many kinds of seeds included in my wild garden ever came to maturity, and on the whole the experiment could hardly be called anything but a failure.

I was reminded by this failure — as I usually am reminded — of something else. Do you know, all ambitious young folks, and not a few

ambitious old folks, set out, till they learn better, to make regular wild gardens of their lives? They want to plant in their lives a little of everything, and expect the largest blossoms, on the finest plants. They plant poetry - they are to rival Shakespeare; and music — they will be second Mozarts; and science — they will be Newtons and Agassizs; and shorthand — they will be reporters; and carpentering, for some day they would like to become great builders; and telegraphy, because Edison got his start that way. It is the same story of lily and pansy, and hollyhock and cypress vine, and sweet pea, and marigold and asters, all in the same bed huddled up together, all growing at once, and none of them amounting to anything.

Ah, brother horticulturist, plant your flowers from separate packages, if you are wise, and in well-ordered, roomy beds. Plant no more than you have space and time to cultivate. Choose soil and season, depth and tending, appropriate to each, and you need not fear for the blossoms. But of this wild-garden mode of planning and carrying out your life — beware!

#### XXXIII.

#### BE PATIENT.

A farmer does not expect the seed he sows to spring up as soon as he puts it in the ground, but in our Christian sowing we are often sorely disappointed if the harvest does not instantly follow the planting. A friend is cross, and we seek by our kind words and cheery temper to change his disposition; but dispositions are not changed in a moment, and our first failure, which is sure to come, discourages us. A friend fears death, and we drop a word of comfort about the resurrection and immortality; but still he fears, for that great terror is not easily slain; and we soon give up our comforting in disgust.

Another is a sceptic. We argue with him, and give many a cogent reason for the faith that is in us, but that faith finds no entrance to his soul. "Stupid!" we cry at length, and abandon him to his scepticism. We urge a man to take an active part in some religious work, and he takes none.

We try to cure ourselves of some doubt or sin, and get no relief. We invite strangers into the church or the Sunday school, and they don't come. We make efforts in many good directions, but, because "good things are hard," we meet with rebuffs and long delays, and all our courage oozes out.

Now let us remember that, however absurd it would be in the natural world, yet in the world of the spirit the oftener we sow, the better. Here no one need expect to get a crop from the first seed. It is "line upon line, line upon line; precept upon precept, precept upon precept; here a little and there a little," that will do God's work. The tenth planting may still find the field barren, but the fortieth or fiftieth planting may bring the waving harvest.

To grow discouraged in God's service is to be traitor to God. It is to forget Who is working with us. The seasons sometimes work against the sowing of the farmer, but all the forces of the universe are on *our* side, and are hastening results for us as fast as they can be hastened.

Be patient, then, be patient! Stick to it, and be patient!

#### XXXIV.

#### MAKING TWO BITES OF A CHERRY.

If there is anything for which a bird needs to envy a man it is for this, that the man is not obliged to take two bites of a cherry. Have you ever tried it? Anything more unsatisfactory it would be hard to conceive. The first nibble does not get enough to taste, nor does it leave enough to taste. The first bite finds the cherry insipid, and the second finds it stale.

On the other hand, what a pleasure it is to put into the mouth entire a red, plump, juicy globe of summer sunshine, to feel with the lips the whole sphere of its tense, smooth skin, and with one thrust of the teeth to cleave the white pulp through to the stone! That is the way to eat a cherry!

And that is the way to get satisfaction out of any bit of work. Make two bites of it, and each bite is spoiled. There is not enough in either to give you that pleasurable sense of worthy ac-

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complishment which is one of the noblest rewards of labor. The second bite finds the task already stale, its freshness, joyousness, and zest all taken out of it.

But, on the contrary, what joy it is to roll one's tongue over a good round morsel of work well finished at a sitting! It is globed, entire, perfect, as no job done by snatches could possibly be. It is indeed yours, as if you could put your hands all around it. It is a whole, and not a mosaic.

Stick to your tasks, workers, until they are done, or as long as is consistent with the proper care for your health. Far more is done in one hour than in two half-hours. Look up in your physics the chapter that tells about the power of momentum. The more pauses you permit in your work, the more energy you waste in overcoming inertia. For the sake of economy of strength, then, as well as for the sake of your highest enjoyment, do not make two bites of a cherry!

#### XXXV.

#### CRYPTOGAMOUS CHRISTIANS.

You could study botany quite a while without thought of one of the two great classes into which plants are divided. All our noble trees, our grasses, our beautiful flowers, nearly everything prominent in the plant-world, belongs to one vast group, called Phænogams, from two Greek words which mean "plainly flowering."

But down close to the surface of the big earth huddles a vast, unnoticed plant-world, infinite in variety, and with countless numbers. These are called Cryptogams, from two Greek words signifying "obscurely flowering." You would hesitate to call some of them plants at all. They are such growths as lichens and mosses, as sea-weed and ferns and horse-tail rushes, as "toad-stools" and other fungi.

These cryptogams are often destitute of leaves. Some of them are without roots. Many of them are the paupers of the vegetable kingdom, and live by sucking the life-blood of other plants; they are parasites. Many, except when they are wet, are mere shriveled husks, rattling to the ear and dead to the eye. They are puny, ghostly, dwarf plants. They do not, in general, serve mankind with strong fibre, or grateful shade, or food or medicine or lovely colors. They are the "poor white trash" of the botanical world. And yet there are so many of them!

I fear you couldn't go as far among Christians as you can among plants, without having your attention directed to the cryptogamous variety! There are so many of them, so many!

Here is this young man, born of Christian parents, reared in a Christian home, attendant on Christian services, student in a Christian college, and yet he goes through school and into business, and no one of his school-mates ever suspects, from any public utterance of his, that the love of Christ is seated in his heart, is enthroned over his life. If he is a Christian (and if asked he would probably say he is), he is a cryptogamous one!

Here is this young girl, blest with a praying mother, surrounded by the atmosphere of a godly home, with play-mates and work-mates about her among whom she is a leader, yet they never know from any word of hers that she is a Christian, and no manifest flowering of the Christ-life in her ever draws them to the Saviour. That is because she is a cryptogamous Christian.

Ah, my beloved, if I were you, I'd not be dwarfs in the kingdom! I'd not be dry and dead to the eye, cherishing possibly some shriveled life, waiting for a great revival-flood to develop it. I'd not be parasites, living on the shining Christian graces of others. I'd put forth roots, and bright leaves. I'd let my flowers shine, to the glory of the heavenly Father who gave them to me. I'd not be a Cryptogam, so I wouldn't.

# ASTRONOMICAL REFLECTIONS



## ASTRONOMICAL RE-FLECTIONS

#### XXXVI.

THE HEIGHT OF HEAVEN.

"Is not God in the height of heaven?" asked Job's friend. "And behold the height of the stars, how high they are!" But no one, not even Dante, not even Goethe, could imagine how high they are. Let me repeat a few illustrations, some old, some new. Let us attempt to push the stars farther away from our mind's eye than the close glass vault whereon the ancients saw them as golden studs.

Suppose a child born with an arm reaching to the nearest star, the sun. His fingers would be burnt, poor little fellow! But it takes time for transmission of feeling along nerves, though

such passage is wonderfully swift. And how long would it be before our urchin would feel his burn, and prepare to draw his hand out of the solar fires? It would be much over one hundred years!

We have some idea of the immense watery gulf which parts us from the old world, and of the enormous cable which Cyrus Field at length laid across it. Forty thousand such cables would scarcely span the terrible chasm lying between us and the sun. Let all the people in this world, say two billion of them for good measure, clasp hands, standing five feet apart. Fifty of such lines would not reach the sun.

Few men can walk fifty miles a day; fewer still can continue that rate many days at a time. But suppose such a walker to set out, over some yet undiscovered airy bridge, toward the sun. He would rest on the moon on the thirteenth year. He would die, a century old, not one-twelfth the way to Venus. If he had set out when the Great Pyramid was building, and walked at this rate continuously through the world's recorded history, he would just now be nearing his fiery goal.

Do these facts push the sun away from you a little, so that it does not quite seem to touch the

treetops when it rises? Then stand with your hand on your neighbor's shoulder, fancy yourself the earth and him the sun, and represent this vast distance by the space between you two. On that scale the nearest stars, such as Sirius, would be one hundred miles away. Or, to take the most stupendous illustration in all the range of science, light a match by your window, holding up your watch. If that light could turn the curves, it would flash out from your window over the leagues of land and sea, around and back to you again and again, encircling the earth seven times while your watch ticked once! Yet light, moving with such inconceivable rapidity, in coming from the nearest star, except the sun, spends three years on the road!

And up in the heights of heaven is consummate law, beauty, and goodness. There, across those dizzy wastes, the telescope shows us God, walking in His strong loveliness.

God's in His heaven; All's well with the world.

So sang Browning, but the trembling soul is often led to cry, "God's in His heaven; I fear it's all wrong with the world."

The ancient world was small and the heavens

close, resting on Mount Olympus. Slight need, with such knowledge, of the thought of an omnipresent Deity, and so Homer takes opportunity to work out plans displeasing to Zeus when the monarch of heaven turns his head aside! But now the vastness of the disclosed universe is our best argument, outside of the Bible, for God's omnipresence. With such spaces to span and such immensities to guide, what else could be true of the Creator?

I fancy a great prairie, stretching to the dimmest horizon, without a hill or a tree, and in the centre of it a lonely cottage. All is desolate and awful outside, but within is warmth and cheer and safety, for father is there. Suppose I should take a little child to the doorway and bid him look through a great telescope to the distant town and see his father driving through its streets? The little child would be startled, but not long. He would look behind him and see his father's smile. He would rest against his father's knees and reach for his strong hands to grasp them. And whatever things hard to understand the telescope might show him, he would never for an instant seem parted from his father

And what care we, though from our little world we look out over a vaster prairie and see the Father plainly busy infinite leagues away? We can see His smile close above us. We can feel the pressure of His fingers. Just underneath are the Everlasting Arms. And we shall be content to say: "How He may be there also, I cannot know, but I am blessedly sure the Father is here. Height nor depth can separate us."

#### XXXVII.

#### SUNSPOTS.

What a bother it did make, nearly three centuries ago, when John Fabricius, first of all men, saw a sunspot through a telescope! For before that time it was fairly an article of men's religious faith that the sun was immaculate, a perfect embodiment of God's power, unchanging and unchangeable. Now, behold!

"The very source and font of day
Was dashed with wandering isles of night."

Stout denial did no good. There were the telescopes, and any one might look through them.

Since that time, how much the astronomers have learned about these mysterious splotches! How much! — and yet so little that a newspaper paragraph could fairly sum it up. They have discovered that at some times not a spot can be seen for months, and even years; while at other times eighty spots have been counted at once.

It was a pertinacious German, Herr Schwabe, who observed sunspots for thirty long years, and discovered that, with occasional variations, the periods of greatest sunspot frequency come every eleven years.

Besides this distribution in time, it has been learned that the spots are strangely distributed in space. Thousands of them were mapped out, and it was found that none were very near the sun's poles, few near his equator, and the large majority of them in his middle latitudes.

If you were to look at the sun through a large telescope, you would notice his face covered with little elongated specks of light, called "faculæ." These specks are really ranges of flame-mountains several hundred miles high and many thousand miles long. Now these enormous and intensely bright flame-ridges surround all spots, and the black spots seem to be hollows between them, filled with colder gas.

When a sunspot is about to form, these fiery ridges seem to part. A darker film appears between them, — a "veiled spot," — which afterward breaks apart, and the inky black sunspot is born. None but veiled spots are ever seen near the sun's poles.

And not only is the fiery gas which constitutes the sun heaped up in these great banks about the sunspot hollows, but it usually crowds into the spot, floats over it, projects in long threads, waves about the edge in the loveliest of flaming plumes, or sometimes breaks away entirely and falls into the immense cavity, filling it up with the hot gas again, thus ending the sunspot.

The life of the sunspot is very variable in length. Spots have endured for two hundred days; they have vanished while the astronomer was looking at them. Some are steady, regular in growth, sedate in fading away. Others jerk and flash throughout their troubled existence. And, strangest fact of all, as these sunspots wax and wane, flash into brief life and die away, the earth pulses in response, auroras are brighter and dimmer, and the electric current throbs sympathetically in every telegraph office in the world.

My text is longer than my sermon, which is simply this: Whenever you look at the brilliant sun and think of the black spots which are there for all his brilliancy, I want you to think also of the spots on your own character, which you may think as spotless and pure as the old-time philos-

ophers held the sun to be. No telescope is needed to point them out; they are "naked-eye spots."

To be sure, there are more at some times than at others, and I fear you hold in memory the long periods of spot-minima much more accurately than the short but ugly periods of spotmaxima. To be sure, also, they do not cover your whole nature, but it has its "spot zones" like the sun: mean and wicked territory to which you seldom look, and bright regions whereon you gaze fondly and proudly. To be sure, too, the bright and pleasing portions of your character cluster close about the darker portions, and your faults seem almost to spring from your most shining virtues, as the sunspots are born of the "faculæ." Then, too, many of your faults are only half seen, like the "veiled spots" on the sun, and your brilliant virtues, moreover, crowd into and overhang your darkest vices and seem about to overwhelm them with light. And though some of your faults, like those same spots, persist for weeks in exhibiting their contemptible forms, others disappear after a life of a few hours. And yet, whatever you may say, and however you may try to cheat yourself, there

is a current more delicate than the electric current between the earth and sun, a current which connects you, your faults and virtues and all, with the lives about you; and every time a black fault-spot forms upon your character, be it veiled or open, brief or persistent, it is felt by those around you and known to God, photographed on his great book far more accurately than any astronomer ever photographed a sunspot.

There are in the sky stars which have almost faded out. Every once in a while they make an attempt to shine, flash forth with something of their former splendor for a few months, and then return to their fading estate. These are stars which are almost covered with sunspots. It will take thousands on thousands of years for our sun to reach this condition, but it surely will come at last. And just as surely, if you admit these black spots on your shining, pure characters, the black plague will spread until your light goes out. The stars cannot help it; they are mortal. But you were made to shine for ever and ever.

#### XXXVIII.

"What the Wild Waves Said" to Me.

The other day the young folks of New Jersey were kind enough to invite me to go down to Asbury Park and enjoy the State Christian Endeavor convention with them on the shores of the Atlantic; and you may be sure I was glad enough to go. Let me tell you about a little thought that came to me as I stood, one beautiful night during the three days' convention, on that unsurpassed sea-beach.

The long breakers came rolling in, frothing at the mouth, and then slipped quietly out again beneath the next inrushing monster. On they came, on and on, until I grew dizzy looking at them, and quite stupefied by their thunder. "Where does all the water come from?" I cried. Well could I appreciate the feeling of the poor old woman, who, on her first sight of the sea, profoundly thanked the Lord that at last she had seen something of which there was enough.

And yet, thought I on a sudden, although there is enough of the ocean, there is not *more* than enough — not one gill more than enough. On the scale of a globe three feet in diameter, the great ocean would be more than represented by the thickness of the layer of paint upon it. Just enough of everything to do its proper work, and no more than enough — that seems to be God's rule for nature, as it is his rule for men.

Yes, his rule for men. We think of power when we see the waves, — of God's power that seems so mighty that we sometimes ask ourselves what we need do or can do in the presence of it and in comparison with it. And then, when we think that all this power is at our disposal, we begin to puff out our chests, and brag and bluster. Ah, but to us, as to the great earth, God has given only enough of His power to cover us, to wrap us around — us, and our need and work. No more; not a drop more.

Up above me, as I stood on that lovely beach, the moon was beautiful, shining softly in a clear sky, and painting with a spot of splendor the tip of every dancing wave. But the moon, which lends such charm to the oceans of our earth, has itself no ocean, but is a dead and dried globe, its

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water all sunk far below the level of its outer crust.

And why? Because the moon is a cold globe. Because the volcanic fires that once were at its heart have all gone out. It is they alone, their eager, pulsing, outgiving heat alone, that holds on the surface of our world the thin layer of water that we call ocean.

And now, after so long a preface, hear my thought, — a thought I gave the Endeavorers the next morning, as we stood in our sunrise prayer meeting by the side of the sea. Keep warm the heart within you, if you want to keep the power outside you! If you would have power at the surface, where your life comes in contact with other lives, you must have at the centre that great, burning, eager love of God and man, which alone thrusts power forth and keeps it active. Don't be a dull, dead, cold, dried moon. Pulse and leap and sing with the achieving glory of this oceaned earth.

#### XXXIX.

#### HUMAN METEORS.

Last evening as I walked toward the south an exceedingly bright light flashed suddenly on everything in front of me, and instinctively I turned full about. There in the dark eastern sky I saw a marvel. It was a great ball of flame, looking as large as the moon toward which I had been facing, and it took a swift, noiseless path from Gemini toward Orion. It wriggled like a fiery dragon through the sky, with a train of sparks behind it, and then in an instant all was dark again. A few nights before, in the same part of the sky, I had seen in two hours over seventy of these wonders, belonging to the shower of December 12, but none as fine as that.

These meteors, with their swiftness, their brilliancy, sometimes with the crashing noise that accompanies them, make on the observer the impression of great power. But what is the result of the exciting display? What is left of it

all? A mere handful of iron dust utterly lost amid our soil, or to be gathered with care from the long snows of the Arctic zone, or dredged from the deep sea where little other sediment falls; or, rarely, a larger mass, like this bit of stone in my hand, blackened and cindery and ugly as any piece of slag from the furnace.

For these meteors were only bits of rock flying through space, and darting into our envelope of air with the rush and glare and sad result you see. Why was it? They were going too fast. Take two places about forty miles apart, and in imagination walk from one to the other, or fancy a railroad train whirling you for an hour over that distance. Then take out your watch, and while it ticks a single second imagine that bit of stone making the whole trip! It is going as fast as that.

Now the friction of the air places everywhere a limit to safe motion. If, as one author suggests, you had long arms and could hold your hands forty miles apart, and should attempt to slap them together as fast as the meteor moves, the friction of the air, before they could meet, would burn them to coals! To strike the air with such enormous velocities is the same, in

practical results, as striking a steel plate. The meteor went too fast, and the result is this charred, ugly rock.

Now the poor stone knew no better; but how many human meteors I have seen disregarding friction in their eagerness for brilliancy and speed and noise and the show of power! And just as the air brushed off those long trains of sparks from our poor stone, so the friction of God's outraged laws begins to tear those foolish people down. First goes their health, eyes fail, muscles grow flabby, chest hollow, complexion sallow, circulation feeble, digestion an agony. Then their cheerfulness is crowded off, and they become restless, discontented, solemn, and forget the meaning of a laugh. Then they say goodbye to thoroughness. With no time to do anything well, they rush from dizzy task to task with a flurried, anxious brain. Then their helpfulness is brushed away, their sympathy and love, and they rest absorbed in their selfish plans for aggrandizement and profit. The result is a blackened, soiled, cindery, and worthless life.

You all know something of the great man, Thomas Alva Edison, and what he has accomplished. You know the story of his self-education from a poor railroad boy and tramp telegraph operator, of his slow, patient development, until he became known the wide world over as the inventor of a telephone, of the phonograph, duplex and multiplex telegraphy, an electric light and motor, the microphone, machines for duplicating manuscript, and hundreds of mechanical and physical marveis. You know how he has become not only famous, but enormously wealthy, with one of the greatest establishments for research and experimentation in the world, with dozens of trained assistants, and immense ledgers full of results and valuable facts. And there he toils steadily, sometimes for days together, with hardly a morsel of food or a wink of sleep — one of this world's most faithful servants.

Now to this man, it is said, with this record behind him, a lady came recently, and asked him for a life motto to give her young boy. And what do you think he said? What would a man who had done so much in so short a time, with so few resources to start with, be likely to say? This: "Never look at the clock!" No meteorite philosophy there! No fretting and fuming and racing against time! It is the advice, as it

is the practice, of the most practical and successful man of our times: Don't hurry. Don't carry your thoughts over your present task. Bend all your mind upon that, to forgetfulness of the passing hours. Take no anxious thought for the morrow or for the next task, but peacefully and trustfully do with your might what you have begun to do. Thus alone will you come to shine, not with the cinder-shamed glare of the meteor, but as the stars, forever and ever.

#### XL.

#### COLORED STARS.

Among the most beautiful objects to be seen through the telescope are the colored stars. To be sure, many faintly colored stars may be seen by the unaided eye. Indeed, most stars are tinged with color, our own sun being somewhat yellow. But the slight dash of red shown by a star like Aldebaran, and the green that glances out of Sirius, and the whiff of blue in Capella, are scarcely pronounced enough to warrant calling them colored stars.

A genuine colored star is one of the most beautiful triumphs of nature's palette. It may be a deep, emerald green, or a Prussian blue, or a royal purple, or a fiery scarlet, or of a lilac hue, or any other of a thousand charming colors. How glorious must be sunrise and sunset in worlds lighted by such suns! And if the star is double, as sometimes happens, one red, say, and the other green, what kaleidoscopic effects must

be produced on the worlds that circle through those changing splendors! The poets on such globes must be at their wit's end for language fine enough to describe those marvels.

And yet, after all is said, I must confess to a prejudice against these colored stars. "Why?" you ask in astonishment. Let me explain.

They are all telescopic; that is, they cannot be seen with the unaided eye. This is not because they are too small, or because they are too far away, but because - according to the most probable theory — they are too old! Every star in the sky, you know, is a ball of fiery gas, giving out light merely because it is so hot. The gas on the outside is, of course, the coolest, and it is this layer of cool gas that determines, in large measure, what the color of the star shall be.

If this cool layer is thin, the light of the star can all get through, and it will probably be white; but if the outer crust of cold gas is thick, more and more of the light is kept back. Now the red light will be restrained, and the other colors, getting through, will make a green star. Now both red and yellow will be filtered out by the heavy, cold layer of gas, and the result will be a blue star. It is easily seen, then, why all the stars of decided color are telescopic stars; they are stars that are comparatively cool, and are losing their brilliancy.

I am reminded, when I think of these colored stars, of some people I meet every now and then who "shine" only along certain lines. Talk about the thing in which they are interested, and you think them as brilliant folks as you ever met. You are looking at them through the telescope of their hobby, and you see them giving out only one color, but very delightfully. Take away the telescope, however, and look at them with the naked eye, and they disappear! That is, cease to talk about the one thing in which they are interested, and they shut up their mouths, and their eyes lose their lustre. You think them the dullest people you ever met. You have come across men and women of this kind, haven't vou? And aren't they very much like colored stars?

The cause of the phenomenon, too, is the same in both cases, — lack of youthful fire and ardor. Cold gas soon settles down on the man or the woman that persists in talking and thinking solely along one line. A crust begins to form on

their lives, and their interest cannot get through. You would hardly know that there is a soul back of their dulness. They are growing old, — not necessarily in years, but what is far worse, in spirit.

O young people, and old folks, too, don't become colored stars! These suns of iron and lime and oxygen cannot help cooling off, but vou can. Don't narrow down. Keep up a living interest in all God's beautiful universe. Keep your heart warm with sympathy for all sorts and conditions of men. Keep yourself busy in many ways. Don't get into ruts. Don't go to sleep. Don't vibrate just red or just green or just blue. Don't let a crust form over your soul. Claim all the colors of the rainbow, and shine out a comprehensive white. And remember that a true Christian never fades out, any more than the Sun of Righteousness Himself, but grows brighter and brighter unto the perfect day.

#### XLI.

#### NEGATIVE GRAVITY.

Frank R. Stockton, whose name no one hears nowadays without a smile, has a ridiculous story about negative gravity. A stout elderly gentleman has invented a machine which he can strap on his back and which diminishes his weight at his will. A few turns of the crank are sufficient to break the ties of avoirdupois which bind him to this solid earth and to transform him into a very fantastic, bouncing old gentleman indeed.

Mr. Stockton goes on to tell, in his inimitable way, how once the ingenious inventor strapped the apparatus on his back, and got his wife to wind it up. But she, poor woman, wound it up too tight, and in unspeakable grief saw her husband float off like a balloon in the air, unable to bring himself down. It would take too long to tell you of the agonies the unwilling aeronaut suffered in his witchy flight, and how he was

finally fished down, and the bearing of all this on the interwoven love story.

The fancy of our comical novelist has merely imagined in physical life what is, and has ever been, a reality of spiritual life. Everything on this round world of ours points or falls to one centre. If there were tunnels through the earth, the leaf that fell from a maple here last fall would meet the leaf of the plane tree that fell from Greece to the same centre, and the taproots of all trees, if prolonged, might twine their tendrils in one. And no one has ever been able to free matter from allegiance to this centre. It will rise when we heat it, or push it with powder, or pull it with lighter gas, but the little hands from the great earth-centre only reach out on longer arms, and control it still.

Now, there is a more subtile but equally potent gravity, which urges all souls toward this same earth-focus. You feel it pulling you down into the caverns where money lies, and gold and silver, and gleaming gems. You will recognize it fixing the perpendicularity of many an enterprise, and you will be astonished to see how many lines in our governments, our society, our business, sometimes even our churches, are

merely earth-radii prolonged. When you choose your occupation, you will feel this powerful force trying to draw you into conformity to itself. It is omnipresent, and on the principle of the parallelogram of forces, it thrusts away even your most exalted aspirations, purposes, and prayers.

But that is not all. We should be worms indeed if that were all. There has always been a negative gravity at work upon the souls of men. Since Christ ascended, also, He has drawn men's hearts upward with a power unimagined before. As we permit His tender drawing to have sway over us, worldliness passes away, the attraction of this earth being conquered by the winsomeness of heaven. Then it is that, for Christ's sake, great men can do unnoted work in hidden corners. Then it is that great women spend lavishly their greatness on little things. Then young men at life's cross-roads choose the way to which the Master beckons them, though it be rough and dark, and though the hurrahing throng, with gold and good cheer, invite them to the other. Then young women, with all the mischievous fairies of custom and ease and beauty and pleasure and praise urging them the rose-strewn way of this world's fashion, in the

midst of sneers and smiles choose with Mary the better part.

Rumors of flying-machines are in the air, and the practical realization of Mr. Stockton's whimsical tale may not be far away. But whether we free our few scores of pounds of bone and muscle from the earth-centre, to which they must go at last, is of small importance. Let us win spiritual negative gravity. Let light bodies be impossible, so we have light hearts. Let the birds do our flying for us, but not our singing. Let our soul-casing hug the earth and be near it to the end, but let us so live that some day we may take happy flight, sun, moon and stars and all the earth forgot, nearer, O God, to Thee!

## ELECTRICITY AND OTHER THINGS



## ELECTRICITY AND OTHER THINGS

#### XLII.

STORAGE BATTERY VS. TROLLEY.

Some one has said that the next age will be the trolley age, but don't you believe such a statement. Before many years you will see the last trolley, and all our cars and wheelbarrows and bicycles and phaëtons and sewing-machines and — election machines, will be run on the storage principle. The world is simply waiting for some bright man to invent a storage battery that will hold a little more electricity than the present batteries, and hold it a little longer, and do the work a little more cheaply, and then — down go the trolley wires in an instant.

Why did I introduce this subject? To get a

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chance to ask you, my readers, whether you are trolley folks or storage-battery folks. If the former, your doom is sealed; if the latter, you are the men and women of the future.

What do I mean? Nothing but the old, old question whose familiarity has almost brought it into contempt, "Have you any reserve force?"

Martha, I note your chalky face, your uneasy eyes, your nervous hands. You sat up till one o'clock last night studying trigonometry, and to-night you will do the same at a party, and the next night you will not sit up till one, but you will get up at four, your alarm clock being taught to cry, "Keep in Susy Palfrey's class! Keep in Susy Palfrey's class!"

Tom, I observe your blotched, unhealthy skin and your bloodshot eye. Your hand shook like an aspen when you held the hymn-book with me last Sunday. You have long hours as clerk at Gilbert's. You belong to a literary society that meets every week, and to a band that meets every week, and to a singing class that meets twice a week, and the other evenings you go to parties. You get up at five every morning to study shorthand, because you want to become a reporter.

Tom and Martha, I see in you only fair representatives of a great army, the pale-faced army of trolley people. You keep going, no one can deny that; but wait till your arm slips some day from the wire overhead! Each moment brings you enough force for the next revolution of the wheels of life, but what would you do if it didn't? Your momentum would carry you on a few feet, and then you would stop, and the crowd would gather around you, and the three slow handfuls of earth fall upon you. For when a human arm slips off the trolley wire, it is not so easy to swing it on again.

God has made your bodies most effective storage batteries, Tom and Martha. The Patent Office will never see any storage batteries one-tenth as good. Yet you run around with these storage batteries uncharged, innocently holding on to the trolley wire and crying, "Sufficient unto the day is the health thereof."

You have no right to do this. Our work in the world often calls for special bursts of energy. The great crisis of our lives and of other lives need from us often in a day the strength of ten days or of months. God wants us to keep it ready. We are faithless servants if we do not

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do so. Are you willing to enter heaven — if they will let you get in at all — with this miserable announcement heralding you: "Here is a man — a woman — who was on earth a physical spendthrift, so reckless and impatient that he did not live out half his days"? Do you?

#### XLIII.

#### KALEIDOSCOPES.

Every one is familiar with the lovely toy called the "kaleidoscope," or "beautiful view." Mirrors are placed in a long tube, being arranged in the form of a three-sided, hollow prism. In a transparent receptacle at one end are placed many bits of colored glass. The light, passing through these, is caught up by the mirrors, and multiplied into most charming, symmetrical patterns, constantly changing as the bits of glass fall into different positions. In this ingenious toy the most common materials — mere coarse bits of colored glass, and ordinary, cheap mirrors — are made to construct designs that are the admiration and the study of artists.

And now, have you ever seen kaleidoscopic men? I do not use the word "kaleidoscopic" in its ordinary sense of changeable, fickle, and variable, though there are such men, too, and far too many of them. But of such men as I call kaleidoscopic there are far too few. I mean

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men that can take the ordinary, coarse, humdrum components of each day's living, and transform them into scenes of fairyland.

My human kaleidoscope, as he hurries to catch the train, catches also the glint of the dew on the grass-blades, the shaft of sunshine peering down through the elms, the robin's song in the lilac bush, the passing urchin's shy smile of greeting. As the train whirls him off to his business he carries with him a most charming picture, all constructed of materials which every passenger on that train has also had that morning, yet none of them has the picture, because none of them is a human kaleidoscope.

That's the way it goes through the busy day. His office is dark and small, and he is thronged with many cares, but he carries magic mirrors that transform the whole. They catch up every joke. They exult in such trifles as a new pen, a fresh desk-blotter, a glimpse of blue sky, a whiff of breeze, a bit of good news, a pleasant customer, an especially fine bit of steak for dinner. Every new incident changes the delightful pattern of his fancies, keeping it novel and entrancing.

Nothing comes to my friend Kaleidoscope that does not come, in some form or other, to every man. Indeed, some would call him less fortunate than many men. Wherein is the difference, that he should be constantly creating visions of beauty and pleasure, while they are gazing ahead into blank vacancy? The cause of all this, in the man and the toy alike, is the power of reflection.

My friend Kaleidoscope makes the most of things. He snatches up eagerly every trivial blessing, and tosses it exultantly back and forth among the magic mirrors of his mind, until he has a hundred blessings. He not merely "remembers his mercies" and "counts his blessings," but he magnifies his mercies, and multiplies his blessings. God's hand is in everything; he sees it, and others do not. Every joy reminds him of a score of joys, of which it is typical, and together with which it forms a panorama of pleasure. He not merely makes the best of things, but he makes the most of things. He thanks God not merely in words, but in happiness.

Ah, let us set up the magic mirrors of reflection in our own minds! Let us be ashamed of receiving in a stingy way God's generous gifts. Let us become gracious and grateful kaleidoscopes.

#### XLIV.

#### PERENNIBRANCHIATES.

Probably you have watched tadpoles changing into frogs. What a wonderful transformation, from the tadpole in the pool to the bullfrog on the bank, from a creature that can live only in the water to a creature that can live in the air, from a creature of gills to a creature of lungs, from a creature of the cold, slimy, dark pond to a creature of the bright, sunshiny, warm earth!

Have you ever heard of those animals belonging to the same class as the frogs and called perennibranchiates? That long name means that they, though, like the frog, they form lungs within themselves and become able to breathe air, yet hold on to their gills to the day of their death, evidently uncertain which to choose, life in the pool or life on the bank.

These perennibranchiates remind me forcibly of a large class of people, — the people who are

not quite willing to graduate into any higher life, but must hold on to the lower until the end.

There's the Christian, for instance, who wants to be a Christian and yet hold on to all the mischievous and doubtful things of the world, wants to make money just as fast and just as eagerly, to drink wine just the same, and have his game of cards, and spend the Sabbath day as he pleases. He cannot bring his mind to resign the slimy water from which he has come, but keeps his gills ready for life in it at any moment. He is a perennibranchiate Christian.

Then there is the student, who wants to have all the delights of knowledge, yet retain all the joys of a life of carelessness and laziness. He sees nothing out of the way in dropping his lessons half learned for a talk with a friend, or for a chapter in a novel, or for a fit of idle dreaming. He is not quite sure, after all, that he wants to be a student; and so he keeps his gills on, and wets them often in the stagnant pool of the ignorant and thoughtless life from which he came. He is a perennibranchiate student.

Nothing is meaner than being on the fence. What a contemptible being he is, be he beast or man, whose life is balanced between the lower

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and higher, ready to dip from one to the other, trying to get the good from both and getting nothing worth having from either! Let's not be perennibranchiates.

### XLV.

#### CORALS.

There are four conditions of the growth of the reef coral. Quite a striking resemblance exists between these four conditions and the laws of best work among men. It will be interesting to trace these resemblances.

First, reef corals will not grow on a sea-bottom much deeper than one hundred feet. I suppose the darkness and the cold and the pressure of the water are too much for them. And few men work well under pressure, either. If you want to get the most out of yourself, the biggest possible reef built, you must have the sense of leisure, whether you have the reality of it or not. Haste makes even more waste in head-work than in hand-work. Working under pressure squeezes out of one's work all its originality and vigor, and makes it as flat as a pancake.

Then, you must work in the light; you must see what you are about. The soldiers in the

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Civil War were no less brave and obedient because they could discuss intelligently the plan of campaign, and sometimes criticize wisely their superior officers. The old theory was that the more nearly mechanical men's work became, the better the work would be. Educated artisans, it was thought, would be above attending to their business. Now we have manual training-classes in our public schools, and night classes for factory hands. We are helping our reef corals by letting in the light.

And men as well as corals refuse to do large work in the cold. Reef corals will not grow in water whose average winter temperature falls below sixty-eight degrees Fahrenheit. They move north where the Gulf Stream carries this temperature; they will not grow, even in the tropics, where the cold currents come down from the north. Men, too, work best with genial surroundings. I like to make purchases in a store where the clerks are all joking with one another, and where the members of the firm give jolly parties to their employees. Good cheer means less cheating, more attention, more honest work. In the same way, if you want to

get the most out of yourself, keep yourself in a good humor.

But these fastidious reef corals will not grow in stagnant water. The water must be salt, charged freshly with the lime which the corals utilize in their wonderful structures, and must be in motion. What care the corals if the waves do sometimes dash into fragments their fragile pink branches? These same waves bring them new life, which more than replaces all that they destroy. Now men also work best in busy places. They catch the contagion of activity. If one man yawns, the whole crowd yawns; and if one man doubles up his fist, your muscles and mine are the tenser for it. Stagnant places are not good places even for thinkers, though they are good places in which to record thought. "In the swim" is a slang phrase which smartly describes a man who does not loiter in the shallow pools, but darts out into the swift currents. And, even if you live in a humdrum town, you must manage to get "in the swim" if you want to do the best work possible for you.

Fourthly and lastly: the reef corals will not grow in muddy places, in impure water. They

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shun the edges of continents and the mouths of rivers. Good for the corals! And well for men, too, when they discover that no strong, large growth is possible in the midst of impurity.

Of course you will understand that there are a large number of exceptional corals which do grow in deep water, in dark, cold places, in the midst of mud and in stagnant pools. Many of these are solitary corals, and all are feeble. I have given the conditions of formation of the gigantic reefs.

And of course you will understand that there are many exceptional men who can do work, of a sort, under pressure and in the midst of ignorance and hatred and stagnation and impurity. Many of these are solitary men, the hermits. But the men of large results, the men who build up the great structure of our Christian civilization, the men who get the most out of themselves, work under the conditions of the reef corals.

### XLVI.

### STATE LINES.

On a long journey recently I was greatly interested in observing, as well as I could, the boundary lines between the States I passed through. It was really wonderful. Here was a lovely plain, with yellow corn-fields and wheat-fields stretching out in unbroken riches, and yet somewhere through the midst of it ran an unseen line, an "imaginary line," which was more real than a Chinese wall would be.

For to the north of the line, in one corn-field, prohibition might rule; to the south, over the other corn-field, rum might hold sway. A farmer on the north has quite a different set of political interests from a farmer on the south. Each has a different group of State officers over him; the capitals which enact laws for them may be five hundred miles apart; the policy of one set of State officers may vary widely from the other. If a riot should occur on one side of the

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mysterious line, or a criminal be discovered at large, officers would be summoned from one quarter; if on the other side, from a very different region.

More than that, the people would differ. Thorough acquaintance with each set would show me variations in their customs, clothing, houses, speech, their very ways of thinking. One set may be sprung, in general, from Puritan ancestry; the other, from King Charles' cavaliers. One may be Catholic in the main; one, Protestant. One side may even be essentially foreign in manners and habits; the other, American.

And even further. I should not need to go far across that strange line to be certain, in most cases, that the very earth beneath me had changed. There would be a new kind of soil, underlaid by a new kind of rock. I may have passed from a limestone to a sandstone region; from coal to lead. I may have passed from birch forests to hickory forests. I should see, if I looked sharply, many differences in the flowers, the butterflies, the very snails.

All that was strange enough, and yet, when I stop to think of it, I am passing over stranger

lines every day, even when I do not stir from the house. And these are state-lines, too. For what line have I crossed when I pass from the state of Joy to the state of Gloom, from the state of Content to the state of Grumbling? The landscape seems unchanged — the same chairs, and carpets, and four walls, and pictures, and people; but when I look carefully, I see that everything is different.

I have changed my capital, and have got under the sway of an entirely different set of officers. My governor lives below and not above! They, the former Governor and the new, are at an infinite distance from each other! And looking closer, I see that chairs, carpets, pictures, and people are also changed. They have grown less lovely, less cheering. They talk a new language to me. Their very nature seems different. Oh, it's an imaginary line like the State-line of our surveyors, but a Chinese wall reaching to the sky would not be as real! I'll scurry back again to the right side of it!







### TELEPHONE TALKS

#### XLVII.

TALK EASY, LISTEN HARD.

How well I remember my first experience with that mysterious instrument which has since become my daily assistant, the telephone! It was the first of the wonderful affairs that our little Western village had seen, and I had never had an opportunity to use it, when one day a friend in the next town "called me up."

I thought the messenger who brought the news looked at me with a respect which that small boy had never shown before. Anyway, I seemed to myself to be twice as tall, for was I not going to the corner grocery to talk through the telephone?

Arrived, I grasped the receiver with awe, almost expecting a shock of electricity up my

sleeve. I held it at a respectful distance from my ear, having no desire to become deaf, and thinking it best to be on the safe side. And then, being told that all was ready, I did the only thing I knew how to do; I pressed my lips against the telephone-box, and shouted "Hello!" at the top of my voice, while the roomful of spectators looked on with interest.

Then came a wee response, faint and distant, like the buzz of a fly on the other side of the room.

"Hey? Speak louder! What is that you say?" I screamed.

Another buzz, quite unintelligible.

"You don't hold your mouth right," said the storekeeper. "You put it too close to the instrument."

So I drew a little back, and to make up for that I howled still louder, while the village loafers gazed at me with big eyes.

But I could make nothing of it. After a few more trials, shifting the position of my mouth as the obliging storekeeper bade me, I gave it up in disgust and disgrace, and he received the message for me. He shouted about as loudly as I had, for he knew as little of the contrivance as I did, but he held the receiver close to his ear, — which I did not notice, — and so he got the message, and I didn't know how it was done.

I actually made several trials, each ending in the same ignominious way, before I found out that to use the telephone you should hold the receiver close to your ear and speak in ordinary tones. As soon as I learned this, telephoning, which before was my dread, the cause of mortification and perspiration, became my delight and pride.

From this trifling experience of mine, I have deduced one of my life maxims,—a formula which I have found very useful in this bustling telephone of a world. The maxim contains a bit of a lesson for men of conceit and of heady self-assertion; a lesson which they will probably leave just where they find it, but nevertheless here it is: "Talk easy; listen hard!"

#### XLVIII.

#### THE FIRE NEXT DOOR.

Some weeks ago they had a fire in the building next to ours. It wasn't much of a fire, but in order to get at it safely the wires that ran into and over the building had to be cut. The next morning, when I went to use my telephone, I could ring and "hello!" all I pleased; there was no response. That fire next door had cut off my telephonic communication with the outer world, and for one day, so far as I was concerned, this earth was set back into the times before Bell and Edison gave to voices the wings of the lightning.

Well, what slaves we do become to our conveniences! I did not realize, before that day, how disgracefully I had become a mere adjunct to a telephone. I despatched boys here and there, with curt, scrawled notes, and impatiently waited their return from tedious errands which

electricity would have accomplished for me in an eye-wink. A dozen times I made fruitless visits to the telephone-box. Still dumb. I felt shut in, smothered, as if I had been in the habit of breathing out as far as Chicago, at least, and were now confined to a cupboard. My whole day's work was clogged, hampered, by that inert telephone-box, and when night came I was out of sorts, feeling out of touch with everything.

But when, next day, I heard the old familiar purr-r-r of the current, and Central's sharp, metallic, "What number, Boston?" and knew that I was again in nineteenth-century contact with the ends of the earth, the lines went out of my forehead, I took a fresh grip of the receiver, I shouted a triumphant "Hello!" and I was myself again. It is a good thing to have the modern improvements, slavery thrown in!

And now, beloved, there are spiritual telephone lines, as well as these of copper. You are put in connection with the rest of the world largely through human lives. Yes, and it is largely through human lives, your influence upon them and their influence upon you, that you are put in touch with heaven and God. If

you do not love your brother whom you have seen, how can your spirit reach out in love and find the unseen God?

Is a life on fire next door to yours? on fire with anger, lust, intemperance, unholy ambition, griefs unreconciled, sins unrepented? And are you looking coldly on, as if the matter were foreign to you? as if the case concerned no one but the fire department: the Sunday-school teachers, the church officers, the pastors? Remember my parable. Through that life may pass the mystic wire that joins you to the larger world of service, to the highest heaven of joy. If that single life burns out, you may be left isolated as in a desert, though lives press upon you from every side. You may cry and receive no response, cry to men and cry to God, because of your cold-blooded selfishness.

Ah, what a wonderful network is human life, and how surely am I my brother's keeper!

#### XLIX.

### "THE LINE IS BUSY."

Do you know what is the most weird thing connected with telephoning, the most ghastly and absurd and persistent and ingenious and maddening thing? It is when you have rung up Central, and given the number you want, and settled yourself for a long and important conversation, to hear from the receiver, in long-drawn, wheezing, unearthly tones, following one another with dead monotony and with measured emphasis, this: "The-line-is-bu-sy—ri-i-ng-off—the-line-is-bu-sy—ri-i-ing-off—the-li-i-ine-is-bu-sy—ri-i-ing-off—the-li-i-ine-is-bu-sy—ri-i-ing-off—the-li-i-ine-is-bu-sy—ri-i-ing-off—the-li-i-ine-is-bu-sy—ri-i-ing-off—the-li-i-ine-is-bu-sy—ri-i-ing-off—the-li-i-ine-is-bu-sy—ri-i-ing-off—the-li-i-ine-is-bu-sy—ri-i-ing," etc., as long as you choose to listen, or until you do "ring off" from that busy line.

There is no use in howling at it, or in arguing to it. There is no use in explaining that the message you want to give is one of extreme importance, that the other fellow cannot want that line half so badly as you do, or have half so great

and pressing need of it. You do not waste your breath in this way, for you know what has happened. The girl at Central has switched into your circuit a phonograph that has been taught, parrot-like, to say nothing but those exasperating words, "The-li-i-ine-is-bu-sy — ri-i-ing-off—the-li-i-." You do not expostulate with a phonograph. You ring off.

How often, beloved, O how often, have I wished for some such phonographic attachment to my life! When I am engaged on some enterprise that is of supreme importance — to me, at least, and sometimes to others; when I want to bend upon some one task every power I possess, and every least particle of every power; when strength is strained to the breaking point, and faith tested to the failing point, and courage held with only a trembling hand to the winning point, - then to be assailed by a bit of gossip with a sting in it, by a piece of thin-skinned querulousness, by a request to make a tenth speech before some already tired audience, by a petition to recommend some incompetent to a place for which he has not even tried to fit himself, by a criticism well meant but totally ignorant and fruitless, by an urging to do for some one what he could much better do for himself,—then, I say, is when I wish with all my groaning soul for a phonographic attachment to my life, that might form, between me and these importunates, a firm because insensible barrier, with its stupid yet meaningful command: "Theli-i-ine-is-bu-sy — ri-i-ing-off — the-li-i-ine-is-bu-sy!"

And I am only one, and my enterprises, after all, though important to myself, are of very little importance to the world. But men are breaking down every day that should live for decades longer to bless mankind, and great careers are constantly cut short, and vast institutions imperilled, just for the lack of such a contrivance as they have at the telephone exchange, and just because people, before they approach a man and claim his interest, his time, and his strength, do not stop to consider whether interest, time, and strength are not probably taxed already far more than they should be taxed, and by matters far more important than they will introduce. We cannot switch a phonograph into our life machine, I suppose, but you and I and all of us can do as well; we can switch in a little thoughtful common sense. Let's do it.

### L.

# "GIVE ME 3429!"

The more I think of it, the more wonderful it seems. That John Smith may stand in his office and ring a little bell. That he may put to his ear a few bits of wood and metal. That those bits of wood and metal will at once talk to him. That they will say, as distinctly as human lips could form it, "What number, please?" That John Smith, bending toward a few pieces of wood and metal fastened to the wall, will proceed to talk at them, saying, "Give me 3429"; or, if John Smith is polite, "Give me 3429, please." That the wood and metal in John Smith's hand will say, "Connected." That forthwith Mrs. John Smith, who is fifteen miles away, and who has just got up from her lunchtable, will be, to most intents and purposes, right there in her husband's city office. That he will talk to her - nay, if he chooses, whisper to her. That he will say, "My old friend, Jack Jingleton, will be out to dinner to-night." That she will say, "I am delighted to hear it, and won't you please bring home a sirloin steak, and come home early, dear?" And that he will kis—no, he can't do that, quite; but who knows what the telephone is coming to some day? I say, all this is very wonderful.

And that John Smith, without stirring from that spot on the carpet, may say, "8297, Central," and presto! the pieces of metal and wood in his hand no longer talk with the sweet voice of Mrs. Smith, but with the gruff bass of Alderman Pennywhacker, just risen from his desk five miles off in the opposite direction, and at the other end of the city. And that, if John Smith chooses, he may stand there all the rest of the day and conjure into that magic contrivance in his hand the voices — I almost said the souls — of hundreds of different men in Boston and New York and Philadelphia and Chicago. I should like to set Scheherezade to telling the most marvellous tales of all her Arabian Nights; and then, when she had done her prettiest, how I should like to take my turn, place before her this actual marvel that so far surpasses the dreams of fiction, and ask Central to give me

Bagdad! When the Lord answered Job out of the whirlwind, He said, "Canst thou send forth lightnings, that they may go and say unto thee, here we are?" Since that time God has taught His creatures to do even this.

Well, there is only one thing man can do that is more wonderful than this, and that thing man has been doing for thousands of years: he has been "getting into connection" with other human souls, and spirit has talked with spirit. When you think of it, when you remember that here is no wire, no wood, no metallic disk, and, at the final point, no air, no matter, just spirit and spirit, my spirit and yours, — what a mystery it is!

And — for this is the object toward which my discourse has tended — your spirit cannot come into any blessed and helpful connection with another spirit except through the great central exchange of the universe, the throne of God. We try to. We try business, and formal society, and mutual advantage, and brute forcings of our way, and many another method, but it is all as if a man should talk into his telephone and forget to "call up Central." He might talk until doomsday, and he would get no response.

All Christians are eager to come into this vital, spiritual touch with one another. Ask God to lead you into it. He alone can. And He will, for the asking. "Give me, O God, the heart of my brother."

#### LI.

### "RING OFF!"

You will be telephoning. You may just have got your man, or thought you had him. "Hello!" you will say. "Hello!" the other fellow will say; and it will be the wrong fellow. "Who are you?" you will ask. "I am 5041," he will say; "and who are you?" "I am 2029," you will reply with emphasis, "and I want 826. Central! give me 826." "Hello, Central!" will come from 5041, "you gave me the wrong number. I want 7623. Hello!"

And then the fun will begin. With a whir the telephonic flood gates will fly open. You will plunge into the midst of a score of conversations, covering all parts of the city. "Is that you, Harry?" "What did you—" "No, Tuesday, I say Tues—" "Hello!" "And did you hear that about—" "Give me 826!" "You, Harry? This is Lucy, and—" "Hello!" "Hello!" "Who are you?" "Who is talking?" "Went to New York, and so—" "I

want 7623; yes, 76—" "Harry? This is—" "Hul-lo!" "Tues—" "Harry—" "York to see—" "826—" "Who are—" "Hello, Cen—" Voices male and female, pitched high and low, gruff and sweet, angry and patient, and through it all a whir, and a clatter, and a buzz,—it is pandemonium broken loose.

And what to do? There is but one thing to do: ring off, go back to your desk, and wait until "Central," at her complex keyboard, with its hundreds of little holes and metallic pegs and flexible wires, has straightened things out again. You will do that, and Lucy will do that, and the man who has been to New York will do that, and one by one you will all go back again when Central has her wits about her. That is the only way out.

And that is the only way out of such experiences when they assail you in the business of life. You know what experiences I mean. The days when everything is piled in upon you at once. When every unfulfilled promise comes home to roost, and pecks at your conscience. When the bills all fall due. When all the clerks are cross. When a score of conflicting engagements press upon you with equal insistence. When callers flock in, and stay, and stay. When your head

aches, and your brain quivers in every convolution. When you discover that you have not furnished enough copy by half a page, that the ledger won't balance by two dollars and forty-two cents, that the faucet leaks in the laundry and the cook has been stealing in the kitchen, that the moths have got into your best dress, and here comes Mrs. Longwind to spend the day. Such times as that, I mean.

Then, there is only one thing to do: ring off. Let go. Loosen your hold. Put your hands in God's. Get away by yourself out of the distraction of it all. It you can't do that, stop and think. Make an oratory of your soul. Talk it over with the Father. Yes, although you have time for nothing but: "Dear Lord, I am tired and confused, but Thou wilt straighten it all out, and I will wait." Ring off. Drop the reins. Let go the plough-handles. Go away from the telephone. Enter into your closet and shut the door. From it vou will come in an hour, a halfhour, a minute, with a head that has ceased throbbing, and a heart that is at peace. You will take up again the wire of life, and find smooth currents running through it. You will give your message, and you will get your reply.

# CAMERA LESSONS



#### LII.

#### OVER-EXPOSED.

The woods are now so full of cameras, each with its happy human slave, that I feel quite safe in using a Kodak illustration. Indeed, I have succumbed with the rest to the allurements of the magic lens, and have been snapped up by the snap-shots.

What fun it is! Not merely the selection of the view you will take, including the merry tramps across country or through city streets; not merely the delightfully mysterious preliminaries, the retirement under the black cloth, the focusing of the brilliant image upon the screen, the trembling removal of the slide, the anxious second look to make sure that all is ready, the excited pressure on the bulb or the button, and the happy anticipation of a picture that shall rival nature's own attractions, — not merely are these to be counted among the joys of amateur photography, but I for one place at the head of

them all the dim and mystic blisses of the dark room.

There is no process in the arts that exceeds in the fascination of its spell the development of a sensitive plate. By the doubtful gleam of your red light, or, better, in absolute darkness, you remove from its holder the plate on which the sun has done its swift work, lay it in the tray, and quickly pour the potent fluid over it. And as the developer is rocked gently back and forth, you watch.

At first the creamy surface is unbroken by a trace of a picture, but in a moment the transformation begins. Here a region darkens, at first slowly, then speedily becomes almost black. In the meantime, here, there, everywhere, lines are darting out, delicate tracery and bolder forms, like the rapid appearance of frostwork on a window-pane. Soon you begin to recognize the scene, and in a flash it is before you again in every detail, and in another flash it starts to fade away, not into whiteness, but into blackness, and you must snatch it out of the charmed bath. There is no nearer approach to fairy-land than this vision.

But sometimes things do not come at all the way of fairy-land. Sometimes you may rock the magic liquid back and forth for ten minutes, and coax out at length only a few dull forms, a mere fragment of the scene you had hoped to fix on paper. The plate was "under-exposed." At other times the plate is scarcely touched by the developing fluid before the latent image flashes out in a bewildering intricacy of detail, while in another instant it has gone, and a horror of dense blackness has seized upon the plate. It has been over-exposed.

Photography is too fine a thing to spoil by moralizing; but, when either of these results comes to my inexperienced manipulations, I console myself by thinking that, in a matter that counts very little, I am only doing what many people do in a matter that counts much. For all of us have seen the under-exposed folks,—the unfortunates who, on account of untoward surroundings, or because of a lack of sensitiveness and quickness in themselves, catch only the fragments of facts, get merely feeble scraps of information, express nothing but flabby ghosts of opinions, and — to adopt two slang phrases of

which I am heartily ashamed — never "get there" because they don't quite "catch on." They are like my under-exposed plates.

The other class are just the opposite. In a ten-minute talk they will tell you all they know. Whatever they have last seen, out it comes. The latest notion that crossed their brains darts forth unabashed. For half an hour you think they know everything and have experienced everything; after that half-hour you can make nothing whatever out of them. You have seen them utterly, and they have gone into permanent eclipse.

Now the photographer has chemicals which he can use to persuade forth an under-exposed plate or retard the development of a plate that has been over-exposed; and, if he uses these chemicals in just the right time and in just the right way, much may be done. But no plate that has been under-exposed or over-exposed is as good as a plate that has been exposed just the right length of time. And oh! it is a relief, in this great world full of under-exposed people and over-exposed folks, to come across a man or a woman who has looked with clear and wise eye at nature, man, and God, seen life in its due pro-

portions, and taken up, to be a part of himself forever, all that is good; exhibiting neither the shrinking of an awkward recluse nor the flashpan fervor of a crank; in manner, in mind, and in temper having struck the golden mean. May such be my friend, and such to my friend be I!

#### LIII.

# NOT EXPOSED.

An amateur photographer of my acquaintance had a comical experience not long ago. She was visiting at the house of a friend that had two pretty and well-behaved children, and of course (an "of course" that every "camera fiend" will understand) she was seized with the ambition to take their pictures.

The tots, therefore, were carefully grouped in the parlor, the mother's arms around them. "Now, steady, and all look pleasant!" The bulb was pressed and the group released only to be re-formed in another part of the room, and again re-formed outdoors where the light was better, and once more outdoors where the background was more artistic. So it was that the amateur photographer carried home in triumph four plates, and took them into the dark room, expecting to emerge therefrom with as charm-

ing a quartette of child groups as the sun ever looked upon with his actinic rays.

But alas! plunged in the wonderful developing bath, the first plate refused to develop anything. She rocked it frantically back and forth, but nothing came. The same result followed when the second plate was submerged. A fresh lot of developer was made up for the third plate, but it remained white, unbroken by a single line or shadow. With amazement and despair the fourth plate, which was the first used, was placed under the influence of the chemicals, and a picture at once flashed forth.

What was the matter with the other three? She had forgotten to "set" the shutter; that is, to pull down the lever which gives force to the spring, so that when the bulb is pressed the shutter is opened for the fraction of a second that alone is needed to do the marvelous work. Once she had put on this power; the other three times she had omitted to do so.

Now, thought I, when I heard of this occurrence,—concerning which you may be sure the lady got heartily laughed at by all her photographic friends,—in this incident, thought I, is a pretty good illustration of the way some people

— most people, I fear — listen to lectures and sermons, or read books and papers. Their eyes are pointing right. The lens is directed at the object, be it a printed volume or a preacher in the pulpit. They are in focus. The sensitive plate is in position — and what a wonderful sensitive plate our brain is, to be sure! There is the group ready to be taken, — the interesting facts, the great truths, the charming pictures presented by book or speaker.

But the power is not on!

That coiled spring — we call it attention — is not tense, but flabby. The shutter of the mind is shut, and there is no way to open it. Press the bulb all you please. Unship the tripod, and carry off your plate-holders with the impression that you have made an impression; but you haven't. The plate is as vacant as before the operation. Ask these persons what the sermon was about, and they will stare stupidly at you. Call for an account of the book they have been reading, and they will stammer some commonplaces that will fit any book ever put between covers. What wonder? They have not thrown on the power. Their minds have not been exposed.

Ah, you have ears and eyes; but do not think that all you have to do in order to hear is to turn your head toward the vibrating voice, or, in order to see, to turn your eye so that the ray will enter it. You carry impervious shutters within those pates of yours, and only your own active, energetic wills can open them. Having ears, it is the easiest thing in the world not to hear, and having eyes, not to see.

# LIV.

#### FIX IT.

I never tire of watching the development of a photographic negative. I am fond of asserting that it is the most wonderful process man has learned from his Creator, and comes the nearest to the act of creating. You whip the milky-white plate out from the plate-holder, place it in the tray, pour over it a beakerful of clear liquid, and wait, quietly rocking it.

I have described the process in another chapter. For possibly a minute nothing happens. Then, as you look closely, a few dark streaks appear, which widen into spots. Slowly they become black. You recognize the sky, the outline of the tops of the trees against it, the white of rivers or of windows or of human faces.

Mysteriously, as you rock the magic liquid over the magic plate, more and more detail creeps into the scene. There is the roguish twist of the mouth. There is that big apple that you have tried in vain to get from the very top of the tree. There is grandma's favorite rose-bush. There is Phil's cart, with Phil prancing in front of it.

Things are moving rapidly now. Instinctively you rock more swiftly, though there is no need of that. Leaves are flashing out. The pebbles are tumbling down on the beach. The shadows are racing with one another in their eagerness to be there, each in his place. Ah, what a marvellous art photography is! Nay, what a marvellous Artist is God!

But we must not keep the plate too long in the bath, or it will be over-developed, as they call it. All the clear lights and shades of the delicate picture will be lost in a mass of ugly black. Just at the proper moment, — and here comes in the photographer's skill to determine this, — just when the blacks are perfectly black, even showing through the gelatine film so that we can see from the back the obscure outlines of the picture, — just then we must snatch the plate from the transforming liquid, and put it in water to stop the process.

But we dare not pause here. If we should, as soon as the light struck the plate it would begin

to grow dull, and all its forms of beauty would pass into an indistinguishable blur. No, it must be hurried into the fixing-bath. This fixing-bath is also colorless, but it produces wonderful results. It clears up the whole plate, and leaves it, after a minute or two, a square of opaque and transparent portions curiously intermingled, and shaded in such fashion that when the light passes through it upon the sensitive paper, it will print in black and white the exact counterpart of nature's loveliness.

But all of this was useless without the fixing-bath. That is where the point of my little sermon comes in. For in the picture that you are trying to make of your life, you are far too likely to leave out the fixing-bath and so spoil the whole. You get in your high-school course a beautiful outline of knowledge, and then rush impatiently into business without waiting to "fix it" by a college course. You watch men at work for a while, and then seek the highest positions in that occupation, without being willing to "fix" your knowledge of the business by slowly working from the bottom to the top. You get a smattering of German, fail to "fix it" by large and constant reading of German books,

and speedily must confess that you have forgotten all the German you ever knew. You read a book on Italian art, are pleased with it and satisfied with yourself, and instead of "fixing" your information by other books on the same great subject, you turn to some new theme which promptly drives the first out of your mind.

A man gets rich, not by handling gold, but by keeping what he handles. A girl becomes beautiful, not by breathing in and breathing out the gifts of nature, but by building them up into firm muscle, a pure skin, steady nerves, and a sweet temper. Not what you read, but what you remember, makes you learned. Not what you see done, but what you do, makes you experienced and skilful.

"Fix" your life. We Americans like to "fix things"; give that word a new and nobler meaning. See how much that is *permanent* you can add each day to your life. Remember that what is good is not as good as it may be till it has become good for all time.

# LV.

# SHORT EXPOSURES AND LONG.

Some day the wise men will spend less time in studying the sciences of beetles and comets and toadstools, and more time in studying for us and for themselves the science of being happy every day. Until the wise men do that for us, we must each stumble along, picking up the laws for ourselves here and there. Queerly enough, the art of photography has hinted two of these laws to me.

I have at home a fine photograph of the large Chicago Auditorium. In looking at that picture — the great building with no sign of life about it, the sidewalk and street in front entirely deserted — I have often wondered what instant the photographer could catch, even on Sunday, when such a lonely view would be possible in the crowded heart of our second American city. One day a friend explained it all to me. It appears that they take such pictures in large cities

not by any instantaneous process, but by quite the longest process possible. They do not use their most sensitive plates, but plates so dull that hours of exposure are required to make the picture. During all those hours men are passing in crowds, and throngs of horses, carts, cars, are going by, but each remains in front of the camera for too short a time, relatively, to make any impression upon the plate. Only the unchanging features of the view appear in the picture.

On the other hand, the photographic plate has been made so sensitive that it has caught the lightning's flash, with all its jagged outline, and imaged the beautiful curve of the shooting star. But such pictures, on the contrary, give no distinct view at all of the abiding features of a land-scape. A clear image of what is transitory, a blurred image, or none at all, of what is permanent.

Now there are short-exposure people and long-exposure people. The short-exposure people are always saying "for instance." Mr. Blue is a short-exposure man. "What abominable weather we're having this year," he growls. "For instance, here's three whole days of continual drizzle. Not a speck of sunshine." Mr.

White is a long-exposure man. "Yes," he replies, "but week before last was a perfect week, and January — don't you remember what a remarkably pleasant month that was this year?"

"This is a miserably dull town," whines Mr. Blue; "nothing going on. For instance, all this past fortnight without a lecture or concert or entertainment of any sort. Not even a handorgan and a monkey." "To be sure," assents Mr. White, "but a month ago I heard you fretting because you had too many meetings to attend. You said that this town was overdoing the matter of lectures and concerts."

Mrs. Blue is a woman with a short-exposure mind. "Dear me! I'm always sick!" she groans. "For instance, headache to-day, toothache yesterday, always so unfortunate!" "But, my dear," asks Mrs. White, "didn't I hear you say the day before yesterday that you were enjoying perfect health? I'm sure you never need the doctor."

That's the way it goes. The whole family of Blues, you see, being short-exposure people, take snap shots at their present condition, get a sharp image of its prominent features, whether painful or pleasant, and that is straightway the

picture of their life for them. The Psalmist said in his haste, "All men are liars." And since, in most things, what is harsh and sour is bold, while the sweet delights lie quiet and unobtrusive, these mind-photographs taken in haste are almost certain to emphasize unpleasantness, to make all men liars and all things ugly.

But the blessed White family, the long-exposure people, do not take instantaneous views, do not say "for instance," but say "on the whole." They are not ignorant of drizzly days and headachy days and dull days, but their minds are set to such long spaces that these passing blots make no impression whatever. Back of the scurrying aches and frets and glooms of life is a quiet, beautiful building, the Palace of Happiness, whereon God's sun shines, wherein God's angels dwell, and that alone is photographed on their placid minds. And so my first photographic law of happiness is, in forming judgments, use long exposures. Now for the second.

A young man fell in love with a photograph. It was a photograph of an ideally beautiful girl, with a sort of dim, hazy outline, which made it doubly enchanting. The young man was on the point of starting out in search for the original of

the picture when he discovered that there were a good many of her, some thirty, in fact — the entire senior class of a famous girls' college. It was a composite picture.

These composite pictures are formed by placing a succession of photographs, carefully adjusted for superposition of features, before a single camera. The result is a picture combining the whole, with, of course, the peculiarities of each quite overwhelmed by the features common to all. Thus you get the typical Indian face, or business man's face, or face of the Smith family.

Now this is the kind of photograph which will be taken in the millennium, when folks dare be honest. For example, instead of the charming picture you carry in your upper left-hand coat pocket, young man, of a maiden with the face of an angel, all ready for company, you will carry a composite picture, obtained with the aid of a detective camera, perhaps, averaging up that same face on rainy days and toothache days and wash days and house-cleaning days and hardlesson days, as well as company days.

And you, young lady, will stick up beside your

mirror where you can see it often, not quite the vision of an American Apollo which now adorns that favored bit of plate glass, but the Apollo look will be somewhat toned down by composition with the coal-bucket look and the bootblacking look and the early-rising look.

But I started to speak of the composite photograph principle in the science of happiness. In dealing with groups of people and sets of circumstances we sadly need to learn to take composite mental views. "Every one has been cross to-day," we say often, with a very vivid mind-photograph of snarling Miss A or sulky Mr. B. In a composite picture the snarls of Miss A and the frowns of Mr. B would have been hidden entirely by the smiles of Miss C, Mr. D, and the rest of the alphabet.

"No one appreciates me," we say; "no one returns my books; no one bows pleasantly." And in every case "no one" means only "some one," or a few "some ones," whose ugly features would make no showing in a composite picture including all who do appreciate us and return our books and bow pleasantly. And so, you see, I can deduce a second photographic law of

happiness: In judgments of groups take composite views. Our first law was: Form judgments of single things with long exposures.

If we should all follow these two simple rules, it would remove us a long step away from our present vision of life—a distorted, blurred image, as in a glass, darkly—and a long step toward the time when we shall see all things with the "face to face" of truth.

# LVI.

# PHOTOGRAPHIC GHOSTS.

It happens once in a while that a photographer sees a ghost. His ghost, like some others, is "developed" from a dark-room séance, but in his case the ghost is "fixed" on a plate and taken out into the light, so that there is no doubt about it, which is quite an improvement over the other "manifestation."

A photographic ghost is an appearance on the negative different from anything before the camera when the picture was taken, and not to be accounted for by any of the conditions of the exposure, atmospheric or otherwise. I thought I had captured one of these ghost when I developed the pictures I took on the Christian Endeavor excursion to California. You remember the exuberant hospitality of those warm-hearted Californians? Well, to my surprise, when I took from the wonderful bath a beautiful plate, which I had exposed at royal Mount Shasta, I found

clearly printed on the sky above its snowy summit the appropriate words, "All are welcome!" That was weird enough, and for some time I thought the spooks were in it, until one day I bethought me to hunt up the paper in which I had wrapped that exposed negative, and brought it across the continent. In a flash the mystery was solved! It was a bit of newspaper, and upon it I found the words, "All are welcome!" forming part of an advertisement. The heat and pressure had simply transferred those words to the sensitive film of my negative. And thus my ghost went the way of all the other ghosts into the bald realm of the commonplace.

But it was not so with a picture I once made of a house in Lexington, Massachusetts. It was one of those delightful old houses that date back to the times before the famous battle, — the very house to whose door the wounded patriot crawled and fell dead at his wife's feet. Just the house for a ghost.

My ghost, I am sorry to say, was not a man, but a curtain. Down over the picture the curtain swept, parting gracefully in the middle, looped back prettily at the sides. Through it the house showed distinctly. I had never

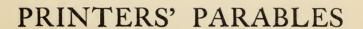
pointed my camera at such a curtain, or, indeed, at any curtain at all. It was without doubt a ghost.

Other amateur photographers have had similar experiences. On developing their plates, they have been amazed to see faces peering out of the midst of landscapes, faces often without bodies to them. Or, they have discovered trees growing up in the centre of parlors.

What is the cause of this strange phenomenon? When it is not due simply to the error of the photographer; when, that is, he has not made two exposures of the same plate, the ghost must be traced further back. Some dealers in sensitive plates, it appears, have the abominable habit of using old negatives, from which they remove the film. and coat them afresh for new exposures. If the removing is not well done, it is easy to see how enough of an old picture may be left to show through into whatever picture is imposed upon it. And there is the end of another ghost story.

Now, if the photographer knew that every picture he took was in this way to become a part of all following pictures, how careful he would be about his exposures! But in the life-

pictures we are all of us making, whether we will or not — for I must get in my little moralizing! — those ghosts are not the exception; they are the rule. Probably every sight we see, every book we read, every word we hear, is printed indelibly somewhere upon our consciousness, ready to crop out no one knows when, to spoil, it may be, the noblest thoughts, or mar the most beautiful dreams. Ah, how careful we must be, then, about our brain exposures!





# PRINTERS' PARABLES

#### LVII.

# JUSTIFYING.

The printer does not mean by "justify" quite what an ordinary mortal means.

When a type "justifies" it fits in with its fellows, — no fraction of an inch too high for the line or too wide for the column. Were a line made up half of "seven-point" type and half of "eight-point," it would not justify. Were a line spaced out so that it could not be squeezed into the same space as the lines above and below, it would not justify. When a page does not justify, it means "pi."

A line of type may contain many styles of type, — Roman and Italic, common-faced and full-faced, — but the type must be all of a height, or there will be trouble. The column may con-

tain lines of all sorts of type, — titles, signatures, agate and great primer, old English and Latin antique, — but each line must be of the same length as its neighbor, no more and no less, or fun may be expected. The page must be "locked up" in its metal frame, the "chase," and must be made as solid as if it were all one piece of metal. That can only be when everything justifies, right and left, and up and down.

Brethren, sisters, behold herein a parable of human life. No two men are alike. A page of people is more multiform than ever was page of type. That is why the sentences spelled out by living men and women are so much more interesting than anything ever written in books. No one need be afraid of life growing monotonous or men growing stereotyped.

But, just the same, a certain degree of uniformity is necessary to a rightly ordered society. Men and women must "justify." Society must be made measurably solid, or it will pi. Men and women have no right to stick out too far beyond the line, up or down, right or left. Many variations are allowable in the face of the type, in the character of the man, but both must fit their place. Type is made in a mold, and

cannot change its own shape; but when people do not justify, it is their own fault.

For instance. Here is a large family, most of whose members rise early. One is lazy and gets up an hour after the others. The whole household is thrown into confusion because this one member of it does not justify.

Here is a church, whose communicants all believe alike on a certain important doctrine. Lawyer A., however, does not agree with the rest on this point, and takes so frequent occasion to say so that he throws the entire church into pi. He won't "justify."

Here is a driver who insists, in America, on turning out to the left, because it's English, you know. Several pied carriages have had no effect on him.

Here is a street all of whose property-owners—save one—have abolished fences. One fence still sticks out prominently, stubbornly refusing to justify.

Here is a town all of whose ladies give their afternoon teas at four o'clock, except Mrs. J., who gives hers at five, just to be different from the rest.

Here is a clerk who addresses all letters with

the State first and the name last, following his own theory of convenience, but forcing scores of perplexed postal clerks every day to stand on their heads.

Oh, my doughty nonconforming brothers and sisters, not all your brains and originality will justify you in failing to justify in minor matters. And if you think the odd type so important that it must go into the page, then make its neighbors toe the mark up to it, if you can. And if you can't, for the sake of peace and a solid chase move that type to some place where it will justify. For remember: if the page is pied, the non-justifying type is pied with all the rest.

# LVIII.

#### LEADS.

"Leads" constitute one of the most humble yet the most useful portions of a printer's outfit. Type may be set either "solid" or "leaded." When "solid," the rows of type are placed cheek by jowl, only the shoulders of the type separating the lines of letters. When "leaded," thin strips of lead are placed between the neighboring rows of type, — strips that do not reach to the height of the face of the type, and so make no impress on the printed page. They merely serve to keep apart the lines of letters. They merely create white and restful blank spaces.

Now the difference between your luxurious books and your commonplace books is, to a large extent, merely a matter of leading. Wide margins and generous spaces between the lines mark the aristocracy of the library, while their opposites characterize the book plebeian. "Leads" have also a great deal to do in indicat-

ing the importance of matter. A leading editorial is "double-leaded," while the carping criticism of Squire Highhorse is inserted "solid." The introduction and comment are spaced out to the full, while the quotation from the other fellow's paper — often the gist and substance of the article — is squeezed up tightly enough to throw the shoulders of the type out of joint.

The type in the leading editorial and in the communication and in the introduction and in the quotation will all be the same, yet quite a different appearance will be given it by the presence or the absence of leads. The thought expressed by the type seems to sympathize with it, and like the type gains quite an imposing dignity when set off with the lordly leads.

It has occurred to me that these leads are fairly typical of quite a large class of my fellow-beings. They are not quite lofty enough to make any impression upon the world. Indeed, they do not seem to bear any decided character at all. But they have much to do with bringing out the character of others. Inconspicuous themselves, they serve as a foil to make others conspicuous. They print the blank spaces in life, without which the most eloquent words and

the most brilliant sentences would be only a black ink-splotch.

Friend Great Pica, you who are swelling out in your line of life so bombastically, do you ever stop to consider how much of your splendor and honor you owe to the vacancy around you, the lesser men, the emptier heads, the white spaces? Suppose you had to jostle, neck and neck, against others of your calibre, — what figure would you cut then, Great Pica? Come, give a little credit to the mediocrities who make you so prominent, or I shall ask the printer to set you up with the blackest De Vinne type he has in the shop.

And you, Friend Lead, cease to look so meek. Hold up your head with the best of the types. You needn't hold your head quite so high as they, because that would ruin your life-work; but preserve your self-respect at least by remembering what an important part you play on the page of life, even if you are not printed there. You are the creator of prominence. You are the arbiter of effect. By hiding out of sight you give others leave to become noted. You seek to be minister of all and the servant of all, my modest Lead, man or metal. Continue thus to illustrate the Christian grace of self-effacement.

#### LIX.

#### DISTRIBUTING.

There is one part of the printer's pleasant task to which he does not turn with unalloyed pleasure. While he is setting up the type he is conscious that every movement makes money. He is paid by the "em." The more square inches of type he can put together in an hour, the bigger will be his day's wages.

But in order to have type to set up, the forms of type must at some time be resolved into their constituent elements, the types must be "distributed" back into their "cases." They must be "thrown in," as the contemptuous expression is.

This is a long and tedious task, the very opposite of exhilarating. Destructive work is always melancholy, and it does seem a great pity to tear down the trim columns so laboriously put together only a few hours ago. Nevertheless, the printer's case must be kept full or his pocket-

book will be empty, so the thankless, profitless, and uninspiring job is slowly accomplished.

In this entire matter the art of printing has two valuable lessons for workers in general. Hear them.

In the first place, every true worker would like to go on, doing all the time some work that is immediately productive and resultful. He likes to see things count; he likes to see the accomplishment growing; he is impatient of the gathering of material and the storing of power. Yet these things are absolutely necessary before one can set up a page of genuine life.

When I see a poor fellow drudging away, his eyes inflamed, his face pallid, his shoulders stooped, his brow anxious, his hands unsteady, I feel like shouting to him, "Hold on! Fill up your cases! Distribute your type! Throw in! Rest doesn't count directly toward the day's wages. Recreation seems even to be tearing down your habits of methodical plodding. But, my dear sir, your boxes are getting empty; you are falling short of the material of life. Stop a day or a week or a month. Run off to the woods or the seashore. Throw in health and strength;

throw in good cheer and pleasant comradeship; throw in wise books and serene peacefulness. Fill up your cases."

Any printer will tell such a worker that it is vastly easier to set type from a full box than from one nearly empty. The fingers may move more rapidly, not being obliged to aim merely at the lower edge and bottom of the box. Besides, the dirt sure to accumulate in a case of type is quite a nuisance and hindrance when the type runs low in the box.

For precisely similar reasons the worker should see to it that his boxes of materials and of abilities are kept full. Work done from full resources is done far better and more speedily. There is no fumbling, no dust and refuse; the aim is sure, the results easy and certain. Fill up your cases.

The second analogy may be expressed in this injunction: "Don't keep dead matter standing." It is considered a disgrace, in a printer's office, to have long galleys of type gathering dust, laid up in the frames or laid out on the "stone." After type has been used, if it is not to be used again, — and especially if it has been stereo-

typed, — it is appropriately called "dead matter," and should be distributed as soon as possible.

Worker, if you would be shrewd, distribute your life-types as soon as the matter has become stereotyped! Your words may have been eloquent as Demosthenes; never mind; they are now dead matter. Don't use them again and again. Throw them in, and set up new words. Your methods may have been good, but they are now stereotyped. Let's have a change. Keep up the circulation. Distribute the type. Give us new combinations.

"Time makes ancient good uncouth," worker,
— ancient formulas, ancient expressions, ancient
tools, ancient ways of using ancient tools. Go
to work on live matter. Distribute your type
for a novel and unhackneyed page of life.

# LX.

#### WEAK CHASES.

In a certain printing office I know of, their chases are too weak. That brings them no end of trouble. You see, the chase is the heavy metal frame that encloses a page of type. The page is somewhat smaller than the chase, and the empty space at top, bottom, and sides is filled by sticks of wood or metal, called "furniture."

To "lock up" a chase, between this furniture and the edge of the chase are placed wedges of metal called "quoins." These wedges are notched with teeth on their longest sides, and two of them are placed with their teeth facing and their apexes running past each other. An instrument called a "key" fits into the teeth of the "quoins," and as it is turned it forces the wedges one to the right and the other to the left, squeezing the type into a very solid block indeed.

That is, if the chase holds firm. But this key and quoin arrangement is very powerful, and the chase must be very thick and solid to stand the strain. In the printing house I have referred to, the chases were made too thin, so that, when this tremendous pressure is brought to bear, they spring, and the type cannot be locked up as tightly as is best.

Many a man, my brethren, when he tries to get a good hold on life, finds that he is working in a weak chase. He has been devoting himself to getting a strong turn-key and mighty quoins. His business "push" is extraordinary, and it would seem that nothing could withstand it; only, he has nothing to push against. He has "pulls" here and "pulls" there, but no solid basis for his pulls. Push and pull as he may, his life and the success thereof slip away from him, get awry, and go to pi.

"Give me something to push against," said, in effect, the old philosopher, "and I will move the world." Now the only thing totally outside our human life is the divine life. The only thing that will make adequate basis for the push and pull of our human business is the character of God. And a knowledge of God and communion with Him is the only chase that can adequately inclose and solidify our pages of life.

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Let that be solid, thick, and enduring, and quoin and key may be as powerful as you please. The more push the better, provided you are pushing on the right thing. The more pull the better, provided you are pulling toward the right thing. The more activity, stress, and tension the better, provided activity is not going to end in failure, stress in fracture, and tension in distortion. But alas for a powerful life that is framed in with weakness!

#### LXI.

#### As to Offsetting.

I often hear certain editors discussing the pictures they want to use in their paper, and now and then I have heard this remark: "O, we can't possibly use that picture. It is too black. It will offset."

My curiosity has been excited, and I have found out what this offsetting is. It seems that the freshly printed sheets, as they fall from the press, are laid by the machinery one on top of another, until quite a pile is made. If much ink is on the sheets at any place, the pressure of the pile will transfer part of the ink to the blank side of the sheet immediately above, causing what the printer calls an offset. When this blank page comes to be printed in its turn, the result is a smutty place, which, falling exactly back of the black picture which has caused the offset, looks almost as if that picture were showing through

the paper. The effect is a very disagreeable one, and is by all means to be avoided.

I have been thinking, since I learned this, about the offsetting we are constantly doing in our life-work. Here is a task that has worried me. It is finished; but, as I look back at it, the view is a very black one. It has been full of gloom and fretfulness. Now I enter upon the next task, a very different one, but into it I carry the fretfulness and the gloom and the dissatisfaction that have made the former task so disagreeable. There has been an offset.

Or, it may be that the first task was left unfinished. I grew tired of it, or concluded that it was too hard, or that some one else might as well put in the finishing touches, and I gave it up before it was done, before I could take any pride in it as an achievement, or any comfort in the memory of it. Then I went on to my next task, but I carried into that an uneasy sense of incompleteness, a feeling as if I were in debt—a hang-dog air, instead of the brisk joy of a successful and accomplishing workman. And so I have made an offset again.

On the whole, the only happy way for any toiler is to make clean jobs, whether he labors at small or great things, pleasant or disagreeable. Leave no task until you can leave it with your head erect and a song on your lips. If you must leave it with a sense of bafflement since you have accomplished so little that you meant to accomplish and so much remains to do for which there is no time, then forget all this on your way to the new task. Don't permit one failure to grow into two. Start fresh and try again, on clean, white paper, with no blurring offset, and you will yet get a good "impression," and your life will yet read fair and beautiful in the book of the recording angel.

#### LXII.

#### NEIGHBORING BLUNDERS.

No one can read proof very long without noticing how frequently it happens that the correction of a blunder dulls his sense, so that he fails to perceive an error lying near by. If he sees a comma out of place, he is likely to miss an inverted letter close at hand. If he observes a "wrong font," his eye slips past a broken letter in the next word. It seems to take some time, after one shrewd perception of error, to get the mind back into its acuteness again.

This is the reason why it is always necessary for at least two persons to read proof, if there is any reason — and when is there not? — for careful accuracy.

I see in this a parable. Our lives are great proofs, in which, if we are wise, we are constantly trying to discover errors and correct faults. Take this advice from the proof-reader: "When you have seen a mistake in your living, look with especial sharpness for an error near by!"

As it is with the proof-reader, so in our lives, when we discover and seek to remedy one wrong, we relax our energies, and permit a neighboring blunder to escape us. For instance, a man who is wont to be tardy and is striving to conquer that fault, is almost certain to close his eyes to the neighboring vice of sloth. The two blunders usually go together. If you see one of them, don't relax your vigilance until you have hunted down the other.

One who is careless in dress is likely to be wanting in tactfulness. A proud man or woman is almost sure to be selfish also. If you yield easily to discouragement, you are quite certain to have a blunted sense of God's presence and power. With a sharp tongue goes often impetuous action. Faults roam in pairs. Let us think of that when we hunt them.

And so, beloved, don't grow conceited over the discovery and conquest of one vice or blunder until you have remembered my proofreader's parable, and have assured yourself that there is not lurking, somewhere near, a twin vice, or possibly a sister, a cousin, or an aunt!

#### LXIII.

#### A Danger in Correcting Errors.

A proof-reader soon learns that when he gets his "second proof" — the proof, that is, of the page whose mistakes shown in the first proof have been corrected — he must read this with quite as much care as he expended on the first proof. This is for the reason that the printers, in making the changes he marked on the first proof, are pretty likely to have made fresh blunders.

The new errors are of a different class from the first set. In re-arranging paragraphs, for instance, they are likely to leave out a "lead," so that two lines are closer together than they should be. In putting in an omitted letter they are wont to leave out a "space," so that two words get run together into one. Sometimes an entire line gets misplaced, and appears in a novel and quite unintelligible position. Sometimes for a broken type a fresh type has been in-

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serted — but the wrong letter. Indeed, the proof-reader thinks himself very lucky and the printer very skilful if in correcting his first proof no single new mistake has been made.

There is in this a parable of something we are continually doing in our lives: correcting mistakes, and making fresh ones in the process. We find ourselves too impulsive and talkative, and correct ourselves into coldness and rigidity. We discover that we are stiff and formal, and remedy the fault by becoming boisterous and impudent.

Some one tells us that we are careless in our toilet, and we fly off into dandyism and prinking. Our letters are charged with absurd brevity, and we proceed to waste hours of time over long scrawls that no one wants to read. Our Sunday-school teaching is said to lack illustrations, and we go to work to gather so many of them that they mutually confound one another and the scholars as well.

The cure of a vice is not the opposite extreme. As old Aristotle shows, that is only another vice. What you want is the mean. Bear in mind my proof-reader's sermon, and when next you set yourself to correcting a fault in yourself, take care that you don't make a blunder as great as the one you are remedying.

#### LXIV.

#### THE WRONG FONTS OF LIFE.

Something for which proof-readers must be constantly on the watch is "wrong fonts." A font is a set of type all of one kind. Usually an article is "set up" with type from one font alone. Fonts vary in size, form, and heaviness of the letter.

Now there are certain kinds of articles in which it is necessary to use several different fonts of type. When such articles come to be "distributed," — the type, that is, returned to the "cases," — it is quite easy to make the mistake of putting the type of one font into the case of another font. In this and in other ways it often happens that "wrong fonts" get into a page of type, so that "w. f." is a frequent correction thereon.

Sometimes these wrong fonts are very conspicuously different from the type that neighbors them, being much blacker, or larger, or smaller.

Often, however, it is merely a slight difference in size that can be noticed, and only a very sharp eye could discover the wrong font.

When it is once seen, however, — and this is the strange part, — that miserable little "w. f." becomes at once the most conspicuous letter in the page, and glares out at you quite to the overwhelming and confusion of its correct neighbors.

Permit me to ask you a rather delicate question: "Have you any wrong fonts in your lives?"

This wrong font is not anything bad, observe. The s in that "observe" is as proper an "s" as there is on this page. There is nothing the matter with it as an s; only — it is a wrong font; it is out of place.

That is why it is so hard for a person to tell whether his life-pages contain any wrong fonts. He is not to look for anything bad, but simply for something that is not harmonious.

When one is wearing a rough working-dress, you know how silly appears a diamond breastpin. It is a wrong font. Precisely so is it in the harder-to-distinguish things of character.

I once knew a young minister, who, during all of his college course, had a devouring interest in politics. His sympathies were always on the side of reform, but his professors, and I among them, wished — O, so often! — that he was less of a reformer just then, and more of a student. The interest in politics was a good thing, but it was a wrong font.

I have known a college teacher with a passion for outdoor exercises. He was a tennis enthusiast, a devotee of hunting, and the like. Now, this was good. His physical condition imperatively called for just this sort of thing. But the professor virtually made himself a professor of tennis, spending not only time, but, what is far more important, spending on his sport interest and zeal that should have gone out to his studies. The tennis became a wrong font.

Brethren, keep things down to their proper proportions. Make your lives harmonious. Don't be cheated by the argument that, since a thing is good, it is therefore good at all times, and in all places. Weed out from your lives the wrong fonts.

#### LXV.

#### ABOUT SPACING.

"Spaces" to the printer are the little bits of metal that separate words; "leads," as has already been said, are the long, flat strips of metal that separate lines. Both of these are lower than the letters, and so do not take the ink, or show, except as white spaces, on the printed page.

Few people notice, as they read their books or papers, to see whether the words are at uniform distances apart, or now huddled together, and now with great spaces between them. The proof-reader, however, must notice this very carefully.

Of course, in such rapid work as the publication of a great newspaper has grown to be, there is no time for such nice details. You will often notice, in reading a newspaper column, a line containing ridiculously few words. That means that some compositor repeated two or three

words, and when the proof-reader saw the blunder, and ordered these words out, there was no time left to work over all the other lines of the paragraph so that the spacing might come out even.

Moreover, the matter has been "set up" in "takes"; that is, the "copy" has been cut into little bits, and one given to each of the multitude of compositors. Some of these will space more widely than the others, and this will be a second cause of lack of uniformity.

The same thing is true of the leads between the lines. The other day I saw a paper that came from Japan, and had been "set up" by the Japanese. Almost every other line lacked a lead below, giving the pages a very peculiar appearance.

In nice work, however, the greatest attention must be paid to both these matters, and a not unfrequent correction that the proof-reader must write is the curt injunction, "Space better." The result of his watchfulness you feel, rather than consciously perceive, as your eye rests with easy pleasure on the smooth page, each word neatly bounded by an encircling moat of white paper.

Now how often do we in this matter imitate in our living the hastily prepared daily newspaper, rather than the well-got-up book!

To-day we leave out all the spaces. We rush from one occupation to another with breathless and awkward speed. We trip ourselves up. We quite lose our heads. All the text of our lives is run together into a jumble.

On another day everything is wide-spaced. Nothing is done on time or according to promise. There is no method, and therefore there are no results. Work dawdles, play dawdles. It takes an hour to get started, and the start has to be made over again frequently.

Sometimes these alternations between wide spacing and close spacing occur at intervals of only a few hours.

Now, no one can look with any pleasure on such a life as that. It distracts the observer as much as the irregularly spaced page annoys the trained eye. It shows at once that there is no attempt at fine living.

Space your lives evenly, if you want to please the eye of the world and an Eye other than that. Let them be beautiful to look upon, as well as useful. Remember that order is heaven's first law. Remember that the white places count. The rests in the music are as valuable as any note, even though you cannot play them. So are the rests in your lives. Put them in all at once, and you have silence. Leave them out altogether, and you have uproar. Use them in their proper places and proportions, and you have the most entrancing music. Don't forget the lesson.

#### LXVI.

#### COMPOUNDS.

One of the best tests of a good proof-reader is his knowledge of compounds. There is no more difficult subject connected with the mechanics of literature. The English language forms compounds and refuses to form them with a most exasperating arbitrariness. Moreover, the various authorities do not agree among themselves, so that the poor proof-reader is indeed in a hard case.

How many of my readers would know—right off — whether it is pocket book, or pocket-book, or pocket-book? How many of you could tell whether to let the printers have it post office, or post-office, or postoffice? How many of you would know when to write it prayer meeting, and when it should be prayer-meeting?

All of such matters a good proof-reader must have at his finger's end, with few rules to guide him, and those few rules carrying each a bundle of exceptions about as big as themselves. Do you wonder, then, at my assertion that compounds furnish one of the best tests of a good proof-reader?

They furnish also, in my opinion, one of the very best tests of a well-balanced life. Let me tell you what I mean.

Here are two young girls teaching in Sunday school. One has a talent for drawing. She compounds it with her Sunday-school work. How she holds the attention of those youngsters. every eye glued to her black-board, and every ear intent on her words! The other girl has a delightful skill in entertaining, but it has never occurred to her to compound this with her Sunday-school teaching. If now and then she should give her scholars, at her own house, such a happy evening as she well knows how to give, it would bind them to her with the cord of love. As it is, her class is falling away at a most discouraging rate, simply because she is not utilizing her powers in connection with it; she does not know the use of the hyphen.

Here are three young men, all clerks in a store. One of them is a wit. He can set a roomful in a roar at any time with his funny

imitations. He is the best humorous reciter in town, as well as the most skilful mimic. But, unfortunately, he has compounded this pleasant skill with his work in the store, and spends a large part of his time telling absurd stories and cutting up ridiculous antics, distracting the attention of his fellow-workmen, and giving his customers the unpleasant impression that he is making fun of them.

The second clerk is skilled in printing letters with an ordinary paint-brush. Of his own accord he prepares for his employer striking display notices, which add considerably to the trade of the store. He has made a good compound, as his rapid rise in the business proves.

The third clerk is an ardent collector of butterflies. He can tell a *Papilio Ajax* as far as he can see its swiftly darting wings. He can recognize the different *sphynges* in the twilight. He raises larvæ of all kinds, and his house is full of cocoons, stretching-boards, and cabinets. What he has failed to do, however, is to compound with his business this keenness of eye and accuracy of observation. All alert with his butterflynet in his hand, he is as stupid as an owl before his customers. Swift as a race-horse in pursuit

of thoas, he is abominably slow in doing up a bundle. Neat-handed as may be in mounting a moth, he is clumsy as possible in tying a package. No wonder that his employer has marked him for discharge as soon as he can find a man to take his place.

You see there is as much art in knowing what not to compound as in knowing what to join together. May we all know just where in our lives the hyphens belong!

#### LXVII.

#### Your Life Paragraphs.

One of the readiest ways of distinguishing a practiced from an ignorant and unskilful writer is by noticing the matter of paragraphs. The beginner scarcely thinks them necessary at all. His manuscripts run along for page after page, and pass over themes the most diverse without a break. There is no rest for the eye, and no pause for the mind. The composition plunges precipitously forward like a hill without a thankyou-ma'am.

A step in advance of this crudity is a blank space in the middle of a line, often occupied by a long, wriggling dash wherewith the writer strove to indicate the transition from one branch of his subject to the next.

Still another token of progress is the half paragraph, with which so many writers are content, evidently deeming themselves to have fulfilled the whole law when they stop short with their

thought where the last sentence ends, and begin upon the new idea at the beginning of the next line, flush with the edge of the paper.

Really, it is quite unusual, the editors tell me, that manuscript-makers know that for a paragraph "as is a paragraph" three things are necessary: a new branch of the subject must be introduced; the former branch must stop wherever the sentence ends; and the new theme must begin at some distance from the edge of the paper, usually at least two inches in, so that there may be no mistake about it.

Now, why have I spoken of this at so great length? Not because of its importance in itself, but because it leads to a comparison with an important lack in many lives.

For there are life paragraphs as well as printers' paragraphs, and few persons learn to use them properly, or at all. Most of us slur our lives, run them all in together. We take our newspaper to the dinner-table and our ledger to our homes. We carry our business and household frets to church with us. Our Bible-reading is snatched between hemming a handkerchief and answering Polly's letter. We say our prayers while we are undressing for bed. If we take

a vacation trip, we stuff it full of tasks. If we have a piece of work to do, we tarry to gossip. These are only samples of the way we leave the paragraphs out of our lives.

In this way we lose the sense of accomplishment. We seem to be always going to do, and never doing. We do not finish an act and then stand off and look at it. How can we, when our acts are so dovetailed together?

In this way we fail of thoroughness. When two things are done at once, although we spend as much time upon them as we would if we did them separately, they are only half as well done. It is concentration that breeds perfection, and the whole mind is none too good a tool for anything that is worth your accomplishing.

In this way we lose the sense of proportion. We cannot tell how much time we are giving to trifles, and how much to fundamentals, when trifles and fundamentals are all interwoven.

And in this way we fail of that orderly, leisurely manner, that calm progression from proudly finished task to task eagerly begun, which is the skilled worker's delight and inspiration. On Saturday night he folds away his week-day thoughts and cares with his week-day

clothes, and enters upon the Lord's Day fresh and free. On Monday morning, he takes up the first task, and bends every faculty upon it until its completion. He sees that it is good. Then he passes to another task with the confidence of a man that has achieved, and so can achieve. And thus he carries other lives along with him as easily as the masterful writer bears his reader over the printed page.

I want to do this. I want to learn just where and how to put in my paragraphs.

# IN THE COURSE OF BUSINESS



# IN THE COURSE OF BUSINESS

#### LXVIII.

THE ART OF WINDOW-TRIMMING.

Window-trimming has become such an art that scores of bright people, with ready wit, artist's eyes, and skilful hands, get their living from it. And nowadays stores are built with magnificent plate-glass fronts, not for the sake of the light, because the electric arc plays the sun within, but for the sake of the window-trimmer.

Here is a dry-goods store, whose window is a great cave of fairy-like white handkerchiefs, a beautiful waxen boy far back in the delicate grotto. Here is a carpet store, whose front is a noble piece of rich tapestry, before which lie superb rugs with two elegant chairs thereon, the

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whole flanked with lace and silken hangings,—a queen's boudoir. Next is a confectioner's, and how the beautiful candies delight the eye, pink and yellow and blue dainties, heaped in the most charming dishes, and all against a background of crumpled silk.

A little farther is a clothier's, with a crowd blocking the sidewalk, pushing for a glimpse at a miniature farm-yard, with oxen and load of hay, with horses and cows, a pond, the old farmer and his boys, and real, live chickens pecking here and there. Next is a florist's, the window a gorgeous tropical bower, fairly dazzling with proud beauties, all the year around. Here is a restaurant, with a range in the foreground, and a cook dexterously cooking three dozen buckwheat cakes at once, to the admiration of a gaping crowd outside. And here is a bookstore, the most tempting sight of all, the window crowded with delectable covers, presenting a feast for a king.

What a contrast, all this, to the hodge-podge window of the country store, wherein a yellow-cased ham neighbors a box of neckties, with a pair of overalls above, bottles of stick candy, a newfangled hoe, an improved churn, and an

enormous pumpkin. There, all is confusion, ugliness, dirt, and unfitness. Here, all is simplicity, order, beauty, and neatness.

It pays to trim shop-windows. It pays in money. That is the primary reason why it is done, you may be sure. There is no better advertisement of the firm or of the goods than an attractive window display; and, at the same time, no advertisement that is easier or cheaper.

But it pays in better things than money. It brightens our traffic-ridden life and our pushing, jostling, clamoring streets. It relieves moneygetting with beauty and refinement. It is an unconscious education to every street waif. It gives gratuitous pleasure to every poor woman. It trains the tenement in the art of decoration. It is the best the city streets can do to offset the gracious country lessons of field and hill, flowers and trees.

There is a window-trimming of the soul. There is a life that hustles to its windows whatever comes handy, the latest impulse, the crudest thought, the whim of the moment, ill-matched crowds of boorish sentences, gestures, and habits. There is another life that gives careful, prayerful thought to the windows by which so

many must pass; that hangs them with graceful courtesies, lights them with delicate cheer, decks them with wisely chosen words; that fashions itself into a charming picture, whereon whoso looks is made happier and better.

This is not hypocrisy, because, — and here is the nub of my discourse, — our human windowdecorating differs from that on Broadway in one important particular. When you saw that handkerchief cave you did not think that the entire store was hung with those lace-like icicles. You would not have charged the proprietor with hypocrisy if, on entering, you had found only humdrum counters and cases. But our human window-decorating, if done as Christ would have it, has such mysterious and potent influence on the heart within that the beauty and graciousness shown outside soon penetrate and permeate the interior, though not there before. No one who has Christ's love in his heart has a right to trim his windows with anything less than his very best.

#### LXIX.

#### SOMETHING ABOUT TRADE-MARKS.

With the growth of business, the increase of competition, the multiplication of inventions, trade-marks are becoming every year more and more important. I notice that these trademarks are placed in the most conspicuous portions of the articles whose makers they advertise, — on the front of the typewriter, the handle of the lawn-mower, the forward support of the bicycle. Wherever that bicycle goes, it spreads the fame of the Columbia, or the Victor, or the Rambler, or what not. Whatever credit the bicycle may gain — or discredit, for that matter — attaches forthwith to the firm name upon the trade-mark. Not all the advertisements in newspapers, on the fences, or sent by mail, can equal, put together, the advertising value of the trade-mark.

Now, we are Christ's workmanship, Paul said, created by Him unto good works, — that is, to

work well. Don't you think that Christ understands the value of the trade-mark? Indeed, He has distinctly provided for one; He bids us confess Him before men, if we want Him to confess us before His Father in heaven.

The advantage that comes to God's kingdom when a man assumes the trade-mark, comes out strongly as a Christian, in other words, joins the church, is this, that whatever good deed the man may henceforth do, whatever good word he may speak or write, is credited to Christ, whose workmanship he has declared himself to be. He is a standing advertisement of Christianity. He is a bit of Christian evidences, extended wherever he goes, and as long as he lives.

"Ah! but," you say, "the material in me is very poor. I shall break down at the end of the first mile, and then, the clearer the trade-mark, the more disgrace shall I bring upon it."

That is to say, you expect to make yourself. You forget that Christ will make you over. When a man takes upon himself that name of Christian, takes it honestly, sincerely, "old things are passed away, all things are become new."

You will make mistakes, to be sure. You will

even break down, as you say, now and then; but it is no longer with the man as it is with the bicycle. The world understands very well, whatever the world may choose to say, that the faults of Christians are not because of their Christianity, but in spite of it. The inconsistencies of even a very weak Christian do not hurt Christianity as much as his consistencies further its cause.

And so, I beg of you, if there is among my readers a single soul that has not yet assumed the name of Christian, make no more foolish and hurtful delay. Remember, the trade-mark is most to be desired when the machine is new.

#### LXX.

#### "O. K."

You may never have suspected it, but the great world of business has at the bottom of it a true sense of humor and a decided hungering after it. How else can you account for the perpetuation of such a form as "O. K."? This was originally, it is said, the contraction used by an ignorant merchant, who thus wrote his approval upon the accounts and similar papers submitted to him: "O. K.," — "Oll korrect"! Like wildfire, the comical contraction passed around among business men, until now it has become so fixed in the English language that not even Noah Webster himself could pry it out, and the most dignified and accurate of men now use it daily without even dreaming of a witticism.

These two letters have come indeed to have an importance quite unexampled among the alphabetical fraternity. When a man places them at the end of any paper, and follows them with his name, it makes him at once responsible for the contents of the paper. Often a heavy financial responsibility is involved, always a moral responsibility. "Has Brown O. K.ed it? It is all right, then." This question and affirmation, for substance, are made every week-day by a hundred thousand persons all over the world.

So much for the preamble; now for the warning. Do you know that there are social and spiritual O. K.'s which are far more important than any ever placed upon paper, yet whose importance is often quite forgotten? Well, there are.

When you introduce a young man to a young woman, you make yourself responsible for his character, that he is fit to associate with her. When you offer your friend a book to read, you virtually "O. K." its contents. When you recommend a magazine or a paper to a possible subscriber, you vouch for its teachings. When you express general approval of any well-known thinker, like Huxley, or Spencer, or Martineau, you "O. K." all his prominent doctrines. When you give undiscriminating praise to an organization, you praise all its methods.

I think you see what I mean. Some way,

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when it is a matter of dollars and cents, of business reputation and personal credit, we are very careful how we affix to any paper those cabalistic letters, "O. K."; but when it is a case of character, very likely a case for eternity, we do not give as many seconds to the matter as before we gave hours, but snap out our "O. K." offhand.

I would not have you always coldly critical, or slow to give warm approval wherever it is deserved; but as you value the great cause of truth and human happiness, be at least as careful to see that your O. K. is warranted in spiritual matters as you would be in the matter of a grocer's bill.

#### LXXI.

### THICK AND THIN.

Every dressmaker is said to have in her establishment two mirrors. Before one of them she places her fat customers, and straightway Madame Avoirdupois has become as light and graceful as Titania. Before the other mirror she places her bony customers, and presto! they swell out, to their delighted vision, as roundly plump as Madame Embonpoint.

Though this mode of enhancing the beauty of their goods is well known and widely employed by dressmakers, it is said that a New York dressmaker has won conspicuous success and much money by carrying it one step further. Her entire establishment is divided into halves, in one of which, known as the "thick rooms," none but the anti-fat mirrors are to be seen on all sides, while in the other part are no mirrors but those which would clothe a skeleton with flesh.

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And thus all her customers are pleased with themselves, and so with her.

You may learn a lesson from these dressmakers, and it is this: Not all kinds of folks are to be treated alike by you. You delight in an air of bonhomie, and wish to be hail-fellow-well-met with all you come across. But look twice; you may have hold of a "thin" specimen — some one of the thin-skinned variety, to whom your well-meant jokes would be insults, and your badinage constitute ground for mortal offence. Put that person in the "thin" room, if you want to retain a friend and supporter.

Then, you have a sharp tongue. There is no denying it, you have. When folks understand that there is a warm heart beneath it, and that your acidulous epigrams contain, after all, only lactic acid,—the milk of human kindness,—then all is lovely. But stay. Look carefully. You may be talking to a "thick" customer,—one of the thick-headed variety, who does not know the difference between jolly sarcasm and spitefully bad temper, and takes every sentence to mean just what it says, without making a whit of allowance for the gleam of the eye or the

pursing of the mouth. You must put him in the "thick" room.

In short, you must learn that a manner which is pleasant to one man is discourteous to another, that the words which cheer some lives are to other lives a poison. You like to be "flat" and out-spoken. Why, it won't always do, as you see, even for a mirror to be flat. Learn the folly of telling people just what they are. The fat woman is made no thinner by the dressmaker's glass, but she is made happier, and no harm is done. Learn the wisdom of respecting your friends' idiosyncrasies. In short, take the advice of that patron saint of common sense, St. Paul, and become Jew with the Jew, and Greek with the Greek, and all things to all men, that by all means you may save some one man.

#### LXXII.

#### LOOK OUT FOR TAGS.

The other day, in a New York dry-goods store, an old woman stood examining some trinkets at the jewelry counter. The store's detective, his eagle eye on everything, saw her hand go up to her lips. She had slipped into her mouth an imitation diamond ring. But, alas for her! the tag, bearing the price mark, fastened to the ring by a string, hung in plain view outside her mouth. One of the old woman's front teeth had caught the string, and held it fast. In vain she twisted her mouth frantically this way and that. She could not loosen the string, and get the tag inside her mouth. At last the detective volunteered to help her.

My beloved readers, let this old woman be a warning to you. Don't think you can ever hide any sin. Every sin that ever was committed, or ever will be committed, has a tag fastened to it

somewhere, and the string is long enough to keep the tag in full view.

Is it crossness? The tag is likely to be two little vertical furrows between the eyes. Is it suspicion? Lowering eyebrows and a certain lurking light beneath them are very conspicuous tags. Is it envy? It does not require a very shrewd detective to note the discontented twist of the mouth corners that mark that sin. Is it falsehood? Every sentence bears the tag of insincerity.

So don't try to find a sin without a tag. There is no such thing. And even though you may succeed in hiding the sin, never expect to hide the tag.

#### LXXIII.

#### My Cabinet Door.

Many months ago I had a cabinet made for me. It is a very important cabinet, to which I must go a dozen times a day. When the carpenter that made it put it up, after he hung the doors I directed his attention to the fact that the cabinet, settling on the floor, bound the doors so that they stuck whenever one tried to open them. The carpenter hemmed and pshaw-ed, did a little planing, said vaguely that it was all right now, and went away.

But when I came to try it, I found that it was not all right now. I found that the doors still stuck most unmercifully; and they stick to this day. It has required more time and energy than I have been able to muster to send for that busy carpenter to remedy that little defect. I keep thinking, "I must do it; it is silly to keep on tugging at that door a dozen times a day." And yet I don't do it. And every time I use the

cabinet, whatever milk of human kindness is in my heart gets as sour as if it had passed through a thunder-storm. And five minutes' work at the right time would have prevented all the trouble.

That is the way it is everywhere. I was attending a convention the other day, and they told me that one of the principal speakers had almost missed his appointment because he had taken from Boston a steamer which landed him up a river a hundred miles from the river on which the convention was held. Doubtless the map of the State in question had not been mastered when that speaker was a boy. Who of us is there that has not been plagued all his life with such omissions of knowledge? who that is not embarrassed, for instance, whenever a certain arithmetical operation is encountered, or a certain period of history comes up in the conversation? We carelessly slipped over that part of our school-boy studies, and that door sticks all through our lives.

If we had only realized, — how many of us are saying, — if we had only realized, during those times that were so critical for our future happiness and power, just how critical they were! We had more time for reading when we were

boys, far more time, than ever in later years. If we had only made a wiser choice of books to read! We had time then to build up a strong body, to push out our muscles, and widen our chests, and put stamina into our nerves; but we left ever so many doors in our body that stick now when we try to use them, hindering us, when we are busiest, with untimely headaches and backaches, and eye-aches and nervous breakdowns!

When we chose a business, why did we not choose it with more care? Why did we not get the advice of wiser men? Why did we not make longer and fuller preparation? The knowledge and the training that five months at the start might have given us would be worth five years to us now.

Worst of all, ah me! the little sins that we permitted to remain, the faults of temper and of will that we allowed to go uncorrected! At the time when we built them into our character, a little determination would have shaved them off, but now we have been sticking at them all these years, and they have been taking away our strength and making us all the time less of a man.

Well. I seem to understand the matter pretty well; what is to hinder my sending for the carpenter right away? He will take the doors from their hinges, plane off the bottoms a little, put the doors back, and my troubles will be at an end.

Yes, that is so. It is absurd that I have neglected all these months to send for that careless carpenter. I will send for him - to-morrow.

#### LXXIV.

#### THE SUNNY SIDE OF THINGS.

Opposite my editorial sanctum is a high office building. I can look into its seventh story, but its great granite walls rise so far above me that they quite shut out the sky unless I stand very close to the window-pane.

Now it is astonishing what a difference there is at different times of day in this vast wall of masonry. In the morning the sun shines on it, and every inch of its white surface is alive with light. Each glittering facet of the quartz and mica and feldspar crystals of which the granite is composed sends its own brilliant beam over into my office. Every pane of glass in all the scores of windows opposite has become a sun so dazzling that I cannot look at it. My room is bathed in the light as if it were facing the east, and were receiving the sun's very best, direct from the orb of day.

But in the afternoon, what a change! The

laughing wall now wears a most portentous frown; the palace of pleasure has become a Bastile. It is dark and cold and dismal in every square inch of its towering area.

Over on the other side of the Tremont Building (for that is the name of the great edifice) the sun is now shining, and our friends in the Congregational House are getting the benefit of it; but this side is chilling and depressing in the extreme.

Ah, but, by this time the sun is in the west! Here comes the blessed flaming ball itself, and I have no more need of a reflection. I can see it accomplishing the latter half of its daily course, and I can watch it set in splendor beyond the Granary Burying Ground, beyond Park Street Church, beyond the tree-tops of the Common and the long reach of the Charles, back behind the distant Weston hills. No thanks to Tremont Building, but I am still in the sun.

Yes, and that is where I want to be all the time! It is not possible to move our building so as to keep every office on the sunny side of Tremont Building, or within the direct rays of the sun. In the matter of sunlight I am more favored than some of the other inhabitants of the

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building. But it is possible for all of us to keep our spirits on the sunny side of things. The Sun of Righteousness will never set. Let us live in the clear shining of His light.

# HIGHWAY HOMILIES



## HIGHWAY HOMILIES

#### LXXV.

"SHINE 'EM UP, Boss!"

To reach my office, I must pass by three or four bootblacks' stands, whose dusky owners always look critically at my shoes as I hurry along, and shout an emphatic condemnation of their condition: "Shine 'em up, sir?" "Have a shine, boss?" "Shine, sir? First-class shine."

At the beginning of my daily pilgrimages along this street of the bootblacks, I was quite embarrassed by those vocal attacks on my footgear. A busy editor does not always get in the morning as much time as he would like with his blacking-box. It was with a truly humble and apologetic air that I would hasten by, hoping

that no one besides the bootblacks was looking at my dusty shoes.

But one day, when I had more time than usual, — doubtless owing to some superhuman effort of my wife's in getting me up, — I blacked my shoes to the very best of my ability. How they did shine! An arc light was as nothing to them. They would have caused the sun itself to hide his dazzled head.

But when in the proud consciousness of virtue I strode past those bootblacks, what do you think they did? Remain silent in a hush of awe and admiration? Not a bit of it! "Shine yer boots, boss?" "First-class shine here!" "Shine 'em up! Shine 'em up!" as vigorously as ever, and all down the street.

From that day the bootblacks' criticism has lost its terrors for me. I have learned that they do not discriminate.

And I have taken the parable into practical life.

Do you know, there are in the world lots of critics of the bootblack variety. They have got so used to finding fault that they actually can't stop, poor things! "I don't like this," and "Why don't you improve on that?" have so

fastened themselves upon their tongues that even when "this" has been changed to their taste, and "that" has been improved to perfection, the old phrases leap forth with the same sting in the end.

Though why should there be a sting in them? Why should not we learn to discriminate, if they do not?

I tell you, my beloved, you have taken a long step in life when you have learned that there are a lot of folks whose opinions are not worth minding.

### LXXVI.

#### THOSE DOOR-SPRINGS.

There is a series of doors I must pass through every morning and evening, not always all of them, but always some of them, and often the entire set. — doors of two railway stations, the cars, and the outer and inner doors of our office building. These ten doors — there are actually ten — are all provided with those strong doorsprings that have come into use within a few years, - springs strong enough to shut the door in the face of a Kansas cyclone. At the low estimate of five pounds' pressure to a door, and remembering that I go in and out of the office doors several times a day, I calculate that I waste on these doors one hundred pounds of strength for every working-day of the year, or thirty thousand pounds in the course of a twelvemonth Fifteen tons!

Now I should not grudge that exertion if it were spent in some good cause, but have you

ever thought why those heavy springs are placed everywhere on our large doors? It is simply because of the careless people in the world. Because it is necessary to keep doors closed, and because careless folks will not close them, therefore machinery for closing them must be invented, and you and I, who are not lazy or selfish or heedless, have to work the machinery. With my thirty thousand pounds of pressure, I close every year I do not know how many thousands of doors for those people. It makes me mad every time I think of it.

And that is only a sample of the way, all through this world, the innocent have to suffer for the sins of others,

#### LXXVII.

#### HANDLES.

I am a suburbanite, — a man of bundles. One evening I was trudging home with a particularly awkward parcel. The strings cut into my fingers. When I tried to carry it in my arms, they at once began to ache from their constrained position. The bundle was all angles. It began to tear under my vicious shiftings.

As I was leaving a grocery, after making some final purchases, the clerk looked pityingly at me.

"That's quite a load. Don't you want me to fix it?"

"Fix" is the American's word of comfort, and I instantly agreed.

Making my chief foe the basis, the grocer attached to it all the smaller parcels, passing a stout cord over and over, and then hooked into it one of those wooden handles that have done so much to ease our lives since they were invented.

I walked off, a new man. It was a much heavier load, for my purchases there had been many; and yet I bore it easily, for I had an easy hold upon it. From shuffling, my gait became a rapid stride. From tense and nervous, my face became placid. Before, my bundles had blotted out the world; now, I actually forgot that I was carrying anything, and fell to planning an essay. It was all on account of the handle.

And, on the whole, throughout life, there's everything in the way you take hold of what you have to do. That is why some days go hitching, rasping, pulling, dragging, from fretful morn to headachy eve, while other days, with just the same tasks, are one delightful scene of easy mastery and smiling accomplishment. The first day had no handle, the second had. The first tasks were grasped by the string, that cut; the second were fitted with an attachment for power.

What is this handle for days and for works? Ah, you do not need to be told that it is prayer.

#### LXXVIII.

### "Don't Talk to the Motor-Man."

I often see in the electric cars this command: "Don't Talk to the Motor-Man." The other day I saw it emphasized, a long notice setting forth the fact that particular orders had been given all policemen, firemen, and other servants of the public, to have no word to say to the motor-man except in the course of the performance of their duty, and all private citizens were urged to join in preserving the concentration of mind of the man at the electric centre.

My brethren, if in our crowded city streets it is essential to let nothing distract the attention of motor-men, and if mangled limbs and lifeless bodies are the penalties for a disregard of the injunction, it is quite as important to print the same command over thousands of other men in posts of public trust and influence: "Don't Talk to the Motor-Man!"

When you see that a man has a hard task to

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perform, one demanding all his strength and mind for the performance of it, leave him alone; don't distract him.

There are letters. I am quite safe in saying that fully one-fourth of the time of all men in important offices, and in positions of power and responsibility, is spent in answering letters that have absolutely nothing to do with the work the people and God have sent them to do.

There are calls. Probably I am far within the truth when I say that another fourth of the time of these men is spent in sitting impatiently listening to visitors with some private axe to grind, or visitors that just were passing and thought they would stop in, or visitors that would like a little advice or a little assistance in matters entirely foreign to the work of the man with whom they are talking.

Then there are irrelevant meetings, committees, speeches, societies, and the like — outside work thrust upon these men already heavily overburdened by their own proper duties; the third fourth, it is safe to say, goes to meet this insatiable demand. Every man of prominence is besieged from year's beginning to year's end by people who beg him to speak at just this

meeting, lend his name and influence to just this cause more, identify himself with just this good work, write just this article, lead just this conference, be chairman of just this committee.

And so it is that in quite the majority of cases the life-work, the real thing for which the man was sent into the world, the thing he can do best, the thing by which, as all men acknowledge, he can most benefit the world and hasten the Kingdom, receives only one-fourth of his time, and a poor, jaded fourth at that.

Brethren, sisters, don't talk to the motor-man!

I do not mean that a man should shut himself up in the shell of his specialty and never come out of it, — that would be wrong and absurd. But when you see a man whose eyes are wide open to the world's needs, and who is plainly trying, as best he can, to be of the greatest good to the greatest number, — don't nag him. Give him a hearty God-speed, — and go on. Let him alone.

What you have to say to him or write to him that is germane to his work, say it or write it, and he will bless you for it. Direct his attention briefly, if you must, to this or that good cause in which you would like his aid; but if he says that

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his work is enough without any further labors, raise not a word of objection. We have so few great men, because we are hammering them up small and spreading them out thin. We prefer concrete walks to marble statues. We raise the heartless cry, "The man that is doing things is the man to get to do other things." My readers! Never let that silly saying pass your lips!

#### LXXIX.

#### Houses Facing the Wrong Way.

In every old town there are to be seen houses whose very position testifies to great changes in the surroundings. You will see many such when you come to Boston. Not a few of these old houses stand with their sides elbowing the streets. Look down a narrow alley, and you see, crowded up against the neighboring house, the elaborate front door of the ancient mansion.

At once, in your mind's eye, you will remove the entire surroundings, at present so unworthy of the former grandeur of the old house. Lo! it is standing stately and alone, and in front of the great doorway stretches a fine open lawn where children are playing, while possibly there rolls up along the neatly kept driveway the carriage of some courtly visitor. Such testimony of past lawns and flowers and ample spaces is borne by these old houses, that stand edging the street in so awkward a fashion now.

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But, do you know? for my life I cannot see one of these ancient mansions without comparing them to a class of people you and I are certain to meet very often, — people who stand thrusting sharp elbows out into all the thoroughfares of our modern life, while they themselves persistently face imaginary gardens and lawns long since covered over with nineteenth century apartment houses.

These people are constantly saying, "It was not so in my day." Refusing to turn around and look at the park across the street, with its rare flowers and its smooth turf, they are all the time longing for the lawn that once extended in front of their own door. No doubt that lawn was beautiful. No doubt it was well worth remembering. But the crowding population of a great city cannot remain homeless in order to maintain the consistency of the front door of an old mansion.

Age is to be revered, but not when it is facing the wrong way. These houses cannot turn around, but men and women can. Yes, and certainly young men and women can, — for I verily believe that I have seen just as much of this front-door vagary among young people as old.

## 300 Highway Homilies

Right about face, and front the street! Keep your eyes brightly fixed on the road along which is the tramp, tramp, tramp of God's advancing army! Never mind if the old-time lawn is gone, provided the great Architect has decreed its obliteration, and has put something better in its place. Let us all right about face, if need be, and front the living present that is so soon to be the magnificent future.

#### LXXX.

#### OCCUPY.

There are in Boston many odd buildings upon which my eye delights to rest; but there is one odd building in particular which, passing frequently, I have come to have quite a liking for. It is called the Winthrop Building, and is situated at the corner of Washington and Water streets, in the very heart of the old city.

Look at the building from the side, and it is exceedingly imposing, as its beautiful walls, curving in a wide sweep to suit Boston's cowpath streets, rise far into the air. You would think it one of the largest, as it is certainly one of the highest, edifices in town.

But go to one end of it and look up. The contrast is striking and ludicrous; for this building, that is carried so far toward the sky, is only one room wide, — or two rooms, if the rooms are small. The streets lie parallel there at so small a distance from each other that no wider

building was possible on the ground left between them.

Now, many might sneer at this building, whose magnificent show, as seen from one direction, so ridiculously dwindles when looked at from another point of view; but I raise my hat to it in grateful recognition of what it typifies. For to me that Winthrop Building symbolizes those rare lives which, given the narrowest space to build upon, have yet made the most of that place, and risen far into heaven's blue.

They are men and women of scanty brain power; folks that have to think long after a thought; people whose brilliancy always comes the day following the conversation; authors that must plod, and farmers that till small farms, and teachers that never get above the district school, and preachers that never get into the "big" churches; scholars whose treatises never get beyond the first edition; housekeepers with small kitchens and heavy china. And yet the house shines like the sun, and the district school turns out its Garfields, and the small church sends missionaries to China and Africa, and the little farm bears surprising harvests.

God knew best when he gave you narrow

ground space, my brother, my sister. You would like to be brilliant; you would enjoy the genius that leads millions, that draws crowds, that crowds parlors with admiring guests, that renders names immortal, that fills purses and elevates lives. You would like to be a capitol building. But trust God. He has left His air open to you. Though you can't spread as far as the capitol, you can rise as high. Though you can't be as grand, you can be as beautiful.

Yes, as beautiful precisely, and as noble; for Christ's highest praise is, "She hath done what she could," since Christ's most exacting command is, "Occupy till I come."

Occupy! Fill up your ground space!

#### LXXXI.

#### BLUSTER DID NOT DO IT.

I just saw something funny out on Washington Street. The careless driver of a delivery-wagon had allowed his horse to fall on the slippery pavement, and he lay most helplessly, with two feet upon the sidewalk, and so far filling the narrow street that the wagon crossed the car-tracks and totally obstructed traffic.

The usual scene followed: excited driver shouting and tugging at the harness, interested crowd proffering all kinds of advice, objurgating street-car men, peremptory policemen, staring small boys, sympathizing women, and, in the midst of all, the great lump of an animal sprawling wretchedly, his sides heaving and his eyes rolling.

A little man stood at the horse's head looking the circumstances over, his hands plunged in his pockets. On a sudden a big, burly chap came up, snatched the little man contemptuously aside, twirling him around by the shoulder, and began furiously to try to unbuckle the harness. But some way the harness wouldn't unbuckle. The big fingers fumbled at it in vain. The strapping fellow grew redder in the face than before, if possible. In an instant he relinquished the job with a sheepish look, under the twinkling eyes of the little man, muttering, as he did so, "Never saw such tight harness in my life."

Whereupon the little man quietly stepped to the horse's head, gave him a peculiar pull, and up he came. The driver mounted to his seat and drove away. The crowd scattered as quickly as it had formed. The little man and the big man took their several ways, and left me chuckling gleefully.

#### LXXXII.

### Just Do Things.

Yesterday I noticed a great crowd around a shop window, and being of an inquisitive nature I stepped up to see what was the cause of the excitement. A man was sitting inside, close to the window, working at a table, making pipes. That was all. What he was doing was easy to do, seemingly, for just then he was simply polishing the stems of the pipes; but he was doing it rapidly, and in a businesslike way.

I often see such groups outside shop windows, for the merchants have found that such advertising pays. The restaurants, for instance, keep a long gas range in front of their establishments, on which the cooks are constantly pouring great quantities of wheat cakes, and neatly flopping them over, to the vast enjoyment of the gaping throng that never fails to crowd the sidewalk. Men sit cross-legged in the windows of carpet stores, weaving mats. Girls deftly manipulate new typewriters in the windows of their agents.

Other girls all day fire rubber-tipped arrows at a target only the width of the window distant, and yet a wide-eyed company is always looking on.

People like to gaze at any one that is doing something. Let twenty men go to work on a city sewer, and forty men will straightway stop to see them do it. A sign-painter, a bill-sticker, the repairer of the electric wire — all can gather a crowd wherever they go. Nor is it merely in proportion as men are lazy, or have nothing to do themselves, that they like to see other men work.

I take it there is here a hint for all of us. It is this: There is no better or quicker way of catching people's attention than just this of doing things. The Sunday-school teacher may talk till she is hoarse, and possibly produce slight effect, but let her merely take a bit of chalk and make a mark, however crude, upon a blackboard, and every urchin's eye is fixed eagerly upon her at once. Clamor seems sometimes to draw a crowd in the world, but it never holds a crowd. People flock not to the man that talks, but to the man that acts. It is because Parkhurst did things, because Roosevelt did things, that they have become popular heroes.

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Now, ambition of the right kind is a noble spur to a man or woman, and I know no better ambition than this, whose reward of fame is so certain and prompt — the ambition to be seen doing something. Make up your minds that whatever you do shall be done, if possible, better than any one in the world ever did it before. It may be only to peel potatoes. Become the expert potato-peeler of your town. Get renowned for your potato-peeling — its swiftness, its evenness, the thinness of your peelings.

If Aldrich had tried, as Tennyson did, to produce Shakespearean tragedy, he would have failed; but he became famous through writing supremely well those sonnets and lyrics that God put into his brain to write. If Mother Goose had imitated her celebrated contemporary, Alexander Pope, what a wealth of childish pleasure would have been lost to the world!

No life is spoiled because God did not give it some worthy work to do, but because the liver of the life scorned the work and was not worthy of it. No one need be unknown and unnoticed. Every one can do some one thing finely and admirably. Have you found your one thing? Are you doing it?

#### LXXXIII.

#### Asking Directions.

I was once greatly impressed by the advice of a wise and loving friend, who said to me, "Be careful of whom you ask directions!" In my travels I have found this suggestion well worth keeping. All travelers need carefully to consider from whom and how they should ask directions.

Sometimes there is no choice. Arrived once in the centre of a town entirely strange to me, having only a few moments to catch the train, I inquired of the only persons near, a party of school-girls, my way to the station. With a twinkle in her eye that I thought of afterwards, but did not notice then, the leader of the party directed me at least three squares out of my way, so that I missed my train.

Being compelled at midnight in New York to post some correspondence on the mail train which left in a few minutes, I saw no one of whom to make inquiries regarding the whereabouts of the train, except a trio of cabmen, who detained me for quite ten minutes with characteristic badinage, without giving me any information, so that I and my correspondence came very near missing the mark altogether.

Usually, however, one is not shut up to joking school-girls and roguish cabmen. When a man in uniform is near, he is always the man to ask. In a city, accost a policeman, and not a shop-boy washing windows. In a station, accost a uniformed employee, and not one of the loungers on the platform. If for no other reason, in asking directions of men in uniform you are inquiring of them what it is their business to give, and while they are at hand you have no right to ask any one else to do their business for them.

Another and still more important rule is, Ask respectable people rather than those that are plainly dissolute. The temptation is to ask the latter, since they evidently have nothing else to do than answer questions. Remember, however, that to ask your way of them puts you under obligations to them, places them at your

level, and, indeed, for the time being, a little bit above you.

Another suggestion is, Ask old people rather than boys and girls. On a five-hundred-mile journey which I once made on a bicycle through a somewhat thinly settled country, the wisdom of this was frequently borne in upon me. Compelled often to ask my way, the boys and girls would usually answer me with a dumb and stupid stare, or a "Don't know," or with the first direction that entered their heads. Older people, on the contrary, would tell me not merely which road was the shortest, but which was the best for bicycling.

The more dependent you are, the more need there is of care in this matter of asking directions. If it is a dark night, for instance, or if you are in a strange city, and especially if you are a girl or a woman, take heed whom you question. And at all times and under all circumstances the questioning should be done with tact, and the direction, when received, should be rewarded, at least with a cordial "Thank you." Show that you consider it a favor and not something owed you, and remember that other trav-

elers are to come after you, asking that same man the same kind of question, and that their reception will be largely determined by your conduct.

There is a direction, however, more important than any direction over these roads of gravel or cobblestone, and that is our direction along the crooked ways of life. Many thousands are ruined by not asking their way here, or by asking it not soon enough, or not wisely enough. Like the belated traveler along material roads, these spiritual travelers often ask the first person they come across, and through false information get landed in pits of selfishness, in dark forests of sin, and in bogs of infidelity.

The same suggestions may be given for this spiritual asking of directions as for more worldly queries. In the first place, ask your way of the man in uniform, of the man whose position authorizes and requires him to give spiritual direction. Such men are your ministers, your teachers, your friends, your parents, — far above all of these, the one authorized giver of directions, the Bible, the word of God.

Then again, ask those you can respect. Do not ask directions along the road of life, or ac-

cept directions if they are proffered, from any one you would be ashamed to have accompany you along the way pointed out.

Here, too, ask directions of the old rather than of the young, of the gray beard rather than the downy mustache.

Here, too, the darker the night, the less the experience, and the more you feel your weakness, the more need of care and tact in this matter of asking direction.

And, having been wisely directed, remember that, if you owe gratitude to your pilot along the roads of this world, you owe a whole heartful and lifeful of thanks to those who wisely direct you along the road to heaven.

#### LXXXIV.

#### MACADAMIZED ROADS.

Only a few years ago the macadamized road was thought a luxury, and a pretty expensive and foolish luxury at that. Now, in this country, as for many decades in Europe, it is coming to be considered a necessity and a great economy.

It has been computed that on an ordinary dirt road a horse can draw three times the weight he can carry on his back, but on a good macadamized road a horse can draw three times as much as on a dirt road. If you lay down the very finest of all roads, the asphalt pavement, you multiply the power of every horse by eleven as compared to what the animal can do on a dirt road. Of course even the asphalt pavement is excelled by the street railroad, which may be considered, so far as certain vehicles are concerned, a road of solid iron; and here a horse can pull one and two-thirds times what he can draw

on the best asphalt pavements, or fifty-five times what he could carry on his back. Some day, doubtless, even our country roads will receive a coat of asphalt. Some day they may even be provided with iron rails. But for the present we must be satisfied with the extension, as rapid as possible, of the stanch layers of stone, pitch, and gravel contrived by mankind's good friend, Mr. MacAdam.

And now for the application.

There are some workers that scout system. When they have a thing to do, they get at it with their heads down, like a mad bull. They pull and tug frantically at it until it is in some way accomplished, and then glare about them for the next task. They have no schedule, no plans. They use no note-books, make no memoranda. They are not fore-handed, they are off-handed. They read only the books and papers that are thrown in their way; to lay out a course of study would seem preposterous to them. Equally preposterous would seem the idea of clearing away unimportant duties in order that some important task might have their full attention. Things must take their turn, with them, and the arduous work may be put off till the weary evening. They do not think it necessary to lay in a store of strength for an emergency, but use up their nervous force as fast as they can get it. They take a vacation — when they must. They never supply themselves with all the needed information before beginning a piece of work, but get their information from hand to mouth. "Sufficient unto the day is the evil thereof," is a maxim they wrest from its meaning and apply to all their life.

There is no need to go further. You recognize the picture at once. It is that of a rickety farm wagon with a load of corn, which a poor, raw-boned horse is hitching along the orthodox mud road. There is the most artistic diversity about that mud road. You never can tell which way the ruts will jerk you. You never can tell which puddle goes to China and which only to the earth's centre. Splash, tug, wheeze, wear out wagon, wear out horse, wear out temper, wear out time, get little to market, and all for the lack of a road.

Oh, my workers, toiling at the world's heavy burdens or getting ready to take your places among the toilers, learn a lesson from our Scotch friend, MacAdam! Time spent in getting ready is never lost time. A sharp tool lengthens life. A long breath at the start puts the goal nearer. A clear look ahead is worth many a rod. Don't get into a nervous hurry. Don't go at your work like a billy-goat. Have a place for things, have a time for things, have a way for things. First smooth down the hills, and fill up the valleys, and pack the gravel hard, and then hitch up your wagon and bowl ahead! My word for it, you will pull a mighty load to market.

#### LXXXV.

#### HAVE YOU PUNCTURED YOUR TIRE?

The pneumatic tire is a notable invention. made possible the use of the bicycle over the rough pavement and radiating car tracks of a great city. It doubled at once the number of bicyclers, and the comfort of all riders. Just as the soles of our shoes cover the whole earth with leather, so the pneumatic tire converts the most rugged road into an asphalt pavement. What matter if the gas company or the electric company, in the last of their frequent tearings-up of things, have left the street as hard to "trabble" - for carts - as the Jordan road? Have we not our pneumatic tires, and are they not universal levellers? What matter the projecting car-tracks, those steel traps for carriage wheels? What matter the ruts, now, and the uneven boards, and the occasional brickbats? Compressed air and rubber have ransomed us from iolts.

## Have You Punctured Your Tire 319

But ah, when the tire is punctured! You know not what has wrought the mischief. It may be a fragment of broken glass, a tack, a sharp-edged stone. The hole made is probably too small to see. None the less, the air is gone, the tire has collapsed, and you are down on the pavement. You feel every inequality now. Each rough stone is a torture. The car-tracks are agonies. The ruts are long-drawn nightmares. You seem to be riding a rail over a stone heap. You get off in disgust, and trundle your wheel to the nearest repair shop.

The next time you have this experience, bethink yourself of the value of pneumatic tires in our daily lives. Some days I start out with my tires all right. There are annoyances,— a plenty of them,— but they do not annoy. Difficulties stand in the way, but over I go. Ruts yawn, but I do not sink into them. The cobblestones of discomfort seem smooth. The brickbats of spite—I laugh at. In among the snarling tracks of my work, and others' work, I flash with a long, swift, easy curve. Ha, ha! but it is glorious, swinging through life in this way.

But ugh! some point sharper than ordinary has punctured my tire, and I am down at once on the pavement. How every unkind word cuts — now! How every fret annoys me! How tangled up are the tracks, how deep the ruts! Life is all a grind, a maddening, rasping grind; for, don't you see? I have punctured my tire!

Do you want to know what this spiritual tire is, and how I can mend it? You will find your information in that best of road-books, the Bible, where, with the slight change of "feet" to "bicycle" to bring it down to date, in Eph. 6:15 you will read the conclusion of this whole matter.

#### LXXXVI.

#### DIRT IN THE BEARINGS.

Once I took a long bicycle trip, and I well remember how much trouble my bearings cost me one day. The wheel got to running harder and harder. At first it was only a slight rasping, to be felt by the light pressure of the foot on the rapidly moving pedal; then it became a steady grind; and at last the crunching and dragging became unbearable. It was with the greatest difficulty that I could overtake my comrade who had sped on before. When I caught up with him, I persuaded him to help me take my machine to pieces.

Then we found what had been causing all the trouble and had thoroughly used me up for that day's journey — only a few grains of sandy dirt in among the ball bearings of the big wheel. Only a few grains, — but in the bearing-case there was room for nothing but the bearings, so something had to happen. What did happen

was that the little steel balls on which the bicycle turned were sadly worn, and one of them was broken, its fragments completing the mischief, and rendering further progress out of the question. I threw half of the worn balls away, carefully cleaned out the bearing-case, put the wheel together, and had no further trouble.

But as I rode on I could not help moralizing a little. How much harm is done by a little matter, that has no business there, getting into the bearings of our lives! You know what these bearings are - the pivotal places around which all our lives revolve. For instance, the breakfast table is one such bearing. A disagreeable word there, a single scowl or frown, goes rasping through all the day, and may even bring the household wheel to a standstill. A chance greeting on the street is another bearing. If it is cheery, a lift is given to all the hours of the twenty-four; but if it is cold and supercilious, the irritation is likely to spread, and magnify itself as it spreads, until the whole day is ruined. The beginnings of tasks are bearings, and if any gritty bits of impatience or of bad temper or of restlessness get in there, look out! Giving orders to others — those are pivotal moments,

and the spirit and manner in which this is done often determine the success of the work as well as the happiness of both parties.

I think you see what I mean. The places where we rub up against one another and against our tasks, — these are the places to be kept especially clean and pure and bright; and watchfulness here will pay for itself many times over in the course of the long day's living that is to follow.

#### LXXXVII.

#### A CHIROPODIST PARABLE.

I have a friend who, until a few months ago, prided himself on his ability as a pedestrian. He could walk ten miles before breakfast, and cover his forty miles during the day as easily as a man less gifted in his feet could walk to his office.

But in an evil hour my friend got a shoe half-soled. "I had no business to go to that cobbler," he splutters. "I knew he was a bungler. Why, sir, when that shoe came back to me, the sole inside was a veritable Switzerland for picturesque irregularities. I put it on, and it felt all right. I wore it that day, walking a great deal, and by night the mischief was done. I had a corn. Now, sir, I had always laughed at corns, and declared that no one need have them if he wore big enough shoes, but when I tried to cure that corn ——."

I won't weary you by reporting my friend's

entire discourse. People that have corns never tire of talking about them. And no wonder, for the miserable little thorns in the flesh give them no rest, poor things! Says the Persian proverb, "To him that wears a shoe the whole earth is covered with leather"; but the addition of a corn covers the whole world with agony.

What I want to elicit from this very common experience is this: That poor man is now hobbling around on top of unfaithfulness. Probably it was a single blow of the bungling cobbler's hammer which transformed him from a proud pedestrian to a cringing cripple. He is not walking on a corn, but on that shoemaker's carelessness. A corn is a serious matter, and my friend's life will be affected in thousands of ways and possibly for years by that cobbler's heedless and unskilful job.

You are laughing? Yes, people always do laugh at corns, except those that are themselves afflicted with the fiery plagues. But here is something you won't laugh at: There are wounds of the soul, fierce, gnawing, permanent, that are made by a slip of the tongue no more noticeable than that cobbler's slip of the hammer. Does the world contain any spirit thus lamed by a moment's heedlessness of yours?



# FROM CAROLINE'S PULPIT



### FROM CAROLINE'S PULPIT

#### LXXXVIII.

"Don't Bend Your Forehead at Me!"

"Don't bend your forehead at me!" That is one of the unique expressions of my little Caroline. I may not be looking at Caroline, may not be thinking of her, in fact, but whenever the little one catches a frown on her father's face, out pops the childish command, "Don't bend your forehead at me, papa!"

I wonder if she isn't more than half right. I wonder if, whenever we wrinkle up our foreheads in that unpleasant fashion we all know so well, we are not aiming that frown directly at whoever is within sight of it. We are bending our foreheads just as if they were bows, and we are shooting from them, like arrows, a whole swarm of mischievous impulses — impulses of

anger and fretfulness and sadness that strike into hearts right and left, and rankle there, and spread poison throughout whole lives. Bending our foreheads at them? Yes, indeed we are, and most ignoble archery it is, though most effective.

Caroline likes to come up and rub her soft, pudgy little hand over the corrugations, smoothing them all out. Bless her dear little soul! How I wish she could perform that miracle of a child's loving wisdom for every wrinkled forehead in all this wrinkled world!

#### LXXXIX.

#### HER "LOCOMOTY."

My tiny daughter, Caroline, attended a wedding the other day,—the marriage of Lucy Sanborn to Reginald Brown. It was a great event in her little life, but we thought she was not appreciating it. At any rate, all through the solemn-joyous ceremony, the midget had her back turned squarely on the important couple and the clergyman, and she was assiduously playing "creep-mouse" up her father's trousers' leg.

But, a few days after the ceremony, my wife chanced to overhear Caroline talking to herself, and the small girl was saying earnestly, "I, Lucy, take dis Brown, be my locomoty." The rest was gibberish, but it was evident that Caroline had at least grasped the fundamentals.

I trust that, when Caroline grows up, her notion of the marriage tie will have changed; but the graphic formula she hit upon expresses

fairly well the idea of wedlock entertained by some women and a great many men. With them the husband is the "locomoty," and the wife nothing but the baggage-car, hitched on behind. It is the "locomoty" husband that goes ahead, and drags after him the inert car that has been coupled on.

The true simile, as my independent daughter will speedily recognize, - and may she choose a husband that will recognize it also! - is that of a team of horses tugging, side by side, in harness together. They bring to the burden different kinds of strength, but the strength of both is needed. Each knows the way as well as the other. Neither has an up-grade the other does not share. Every ounce of weight is felt by the two alike. In obedience to the same Master they turn, with one mind, this way and that.

The "locomoty" husband finds his wife an additional burden; the true husband finds her a helpmeet. The "locomoty" husband gained a follower; the true husband, a comrade. Ah, Caroline, Caroline, if that is what, in your wise little head, you thought the marriage ceremony signified, no wonder you turned your back upon it!

#### XC.

#### How CAROLINE HELPS.

I am the proud owner of a flower garden, but Caroline calls it *her* garden, and there is nothing the flower-loving midget likes better than to go out with daddy to work among the posies.

Very seriously she shoulders her tiny spade, and very sturdily she trudges after her long-stepping father, and very eagerly she asks where she shall begin. It is quite a problem to find a place for her efforts, because, as may be imagined, a three-year-old has scant ideas regarding horticulture, and can hardly be trusted to tell "pu'sley" from portulaca. That ambitious little spade is as likely as not to plunge deep down among the tender sweet peas, just thrusting tentative fingers up to the light. It is as likely as not to weed out the tulips and leave in the sorrel. Caroline's fundamental notion of gardening is that it consists of transplanting dirt, and if she can get a shovelful of it from the centre

of a bed of pansies, and drop it down, pansies and all, in the midst of a smooth walk, she is proud and happy.

Moreover, Caroline refuses to "stay put." I may have chosen for her a perfectly harmless corner where she may carry out to their limit her original ideas of gardening; but she prefers to work "side er popper"; and, before I know it, she is over where I am, pushing her spade precisely where it should not be pushed, getting in the way of the hoe-handle, or falling over the pile of weeds into the midst of the forget-menots.

And yet, for all the world, I would not have Caroline left out of my garden. Why, the whole garden is for Caroline much more than for myself, and she is the sweetest flower in it. I rejoice that she loves flowers as her father loves them, and I want her to grow up to know something about them, and to understand and enjoy working among them. And the only way in which this can come about, so far as I know, is for her to make a great many mistakes with her baby spade, and think she is helping papa, when she is really hindering him.

And yet isn't she helping me? Although I

must stop every minute to dust off her dress after a fall, to pull my assistant out of the brushpile, to find new places where she may "work," and to tell her that she mustn't do this and she may do that, yet doesn't the baby's gay prattle, and doesn't her mere desire to be helpful, and doesn't the loving little pat she gives me now and then, put lightness in my heart and vigor in my muscles, and make the longest task seem short to me?

I wonder if all this isn't true of the way the great Gardener of the universe is ambitious for us, his blundering children, and patient with our hindering follies? Yes, ah, yes, and helped by us in spite of them all!

#### XCI.

#### "I WANT TO BE SICK."

When Caroline, my small daughter, wants anything, she wants it badly, and she wants it right away. In this respect the little midget is not very much unlike her father.

There is one point, however, in which my little girl gets ahead of the old gentleman, — in her frankness. When she is particularly anxious to have something she should not have, and when we tell her she cannot have it because it will make her sick, she promptly and decisively announces, "But I want to be sick!"

It sounds silly enough, but I often take to heart a little lesson as my young daughter thus caps the climax of obstinacy, and ask myself, "Is not that what you are virtually saying half the time, — you with your bald head and supposedly superior sense?"

You want to be rich. You know very well that probably riches would be a bad thing for you, that probably you would not live on as high a plane with a weight of gold and silver to hold you down; in other words, that it would make you sick, since God knows best what is good for you. But that does not make any difference, you want to be rich; you want to be sick.

Or, it may be, you would like a very different kind of life, a life without so many telephone calls in it, so many interruptions to thoughtful meditation, so many petty duties and routine tasks.

You are doing God's will, you are sure, as it is. You are ten times more useful answering the telephone and saying, "Hello!" and attending to a thousand other routine tasks, than you would be mooning off by yourself, thinking your own dubious thoughts. God knows best how to plan your life. You are doing well now, and another kind of life would doubtless make you sick. But that makes no difference. You want to be sick.

On the whole, I think I must be very gentle with Caroline, and not scold her even when she makes remarks as silly as this. There is so much truth, you know, in the doctrine of heredity!

#### XCII.

#### THE PENNY THAT WENT IN.

I am very much afraid that my little daughter, Caroline, is rapidly learning the ways of the world. This fear is especially excited by my experience with her last Sunday in church.

The small bit of humanity always insists on taking to church her tiny purse. This would be an encouraging characteristic, if the purse did not have bright brass trimmings with a big mock emerald in the centre. It is just possible that benevolence is not at the bottom of Caroline's fondness for purses on Sunday.

But when the deacons set out on their solemn course up and down the aisles, the girlie is all attention at once, and begins to fumble with fat fingers for her penny. Sometimes she is very wealthy—she finds two pennies. It was that way last Sunday. And one penny was dingy, and one was brightest of the bright.

I watched her with much interest and some

anxiety. Evidently a struggle was going on in her wise young head, and, as the deacon approached, the struggle grew more earnest. Should it be the dull penny or the bright one? Well,—I hesitate, and yet I will write it,—when the box was thrust under the perplexed little face, it was the dull penny that went in, and it was the bright penny that dropped back into the gay little purse. "I will give that penny next Sunday," said my small daughter.

Ah, Caroline, Caroline! who am I, that I should blame you? I who, in spite of my years and my knowledge, still continue to give to the dear Lord so many dull pennies of time, and thought, and interest, and to keep so many bright pennies for my own selfish self. "I will give them next Sunday," I say. Fie, fie! Shame upon me!

#### XCIII.

#### "IN A MINT."

My little daughter, Caroline, has caught from the rest of us an abominable phrase. When we want her to do anything, she will pipe up, "Yes, in a mint."

"A shrewd and pertinent mispronunciation, young lady!" I should like to say to her, if she could understand the long words. For is not time, down to the smallest fragment thereof, a veritable mint? Into it we put what is crude, misshapen, tentative; and out of it, if we use the "minute" rightly, we take a deed, an achievement, its surface exquisitely modelled, its edges true, its milling perfect, its ring genuine, — a coin current anywhere in the Kingdom of God!

Ah, let us all become "Masters of the Mint!"

#### XCIV.

#### THE SNOW BABIES.

I was walking along Commonwealth Avenue, Boston, one bright winter's day. The stately homes on either side looked very dark against the great white boulevard. The ground was hard, and the air vibrated like steel with the ringing of the sleigh-bells, so crowded was the doubled streets with the swift sleighs.

And as the flashing equipages glided by, each with a proud burden of beauty and wealth; as the silver harness glittered and the sleigh-bells sung sharply, and the windows of the stately homes looked large and splendid and cold as I passed, — was it envy or hatred filled my heart for all those comfortable folks, with nothing to do but eat and drink and be merry while the world of toil and suffering lay so near at hand?

But of a sudden I came upon two little girls playing before one of the elegant mansions.

They had rolled up balls of the snow and were holding them in their arms.

The little girls smiled at me and spoke; for children are still children, even on Commonwealth Avenue.

Said one little girl, beaming joyously, "O, my baby is so heavy!" and the other said with a laugh, "And my baby is so cold!"

Then, as I went on my way, the grand avenue was a very different street. Those two little girls, thought I, will grow up. They will lose the merriment out of their eyes, and their frank, innocent, friendly ways. They may become as proud as the proud dame that just swept by me. But to them, as to all the world, will come the elemental joys and sorrows. Their babies may indeed be heavy and cold. Their daughters may prove selfish, their sons may be drunkards. The weight of woe, the chill of death, find as ready access into these marble palaces as into the poorest clapboarded tenement. Ah, little girls, in spite of you, in spite of me, and in spite of our differing lots, we are brothers and sisters all, made kindred by a thousand common woes and common joys. Is not this indeed our common wealth, O rich folk of Commonwealth Avenue?



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