



The
World
I Live
In
&
Optimism

A Collection of Essays



HELEN
KELLER

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and
Optimism**

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THE WORLD I LIVE IN

PREFACE

The essays and the poem in this book appeared originally in the "Century Magazine," the essays under the titles "A Chat About the Hand," "Sense and Sensibility," and "My Dreams." Mr. Gilder suggested the articles, and I thank him for his kind interest and encouragement. But he must also accept the responsibility which goes with my gratitude. For it is owing to his wish and that of other editors that I talk so much about myself.

Every book is in a sense autobiographical. But while other self-recording creatures are permitted at least to seem to change the subject, apparently nobody cares what I think of the tariff, the conservation of our natural resources, or the conflicts which revolve about the name of Dreyfus. If I offer to reform the educational system of the world, my editorial friends say, "That is interesting. But will you please tell us what idea you had of goodness and beauty when you were six years old?" First they ask me to tell the life of the child who is mother to the woman. Then they make me my own daughter and ask for an account of grown-up sensations. Finally I am requested to write about my dreams, and thus I become an anachronical grandmother; for it is the special privilege of old age to relate dreams. The editors are so kind that they are no doubt right in thinking that nothing I have to say about the affairs of the universe would be interesting. But until they give me opportunity to write about matters that are not-me, the world must go on uninstructed and unreformed, and I can only do my best with the one small subject upon which I am allowed to discourse.

In "The Chant of Darkness" I did not intend to set up as a poet. I thought I was writing prose, except for the magnificent passage from Job which I was paraphrasing. But this part seemed to my friends to separate itself from the exposition, and I made it into a kind of poem.

H. K.

Wrentham, Massachusetts,
July 1st, 1908.

I. The Seeing Hand

I HAVE just touched my dog. He was rolling on the grass, with pleasure in every muscle and limb. I wanted to catch a picture of him in my fingers, and I touched him as lightly as I would cobwebs; but lo, his fat body revolved, stiffened and solidified into an upright position, and his tongue gave my hand a lick! He pressed close to me, as if he were fain to crowd himself into my hand. He loved it with his tail, with his paw, with his tongue. If he could speak, I believe he would say with me that paradise is attained by touch; for in touch is all love and intelligence.

This small incident started me on a chat about hands, and if my chat is fortunate I have to thank my dog-star. In any case, it is pleasant to have something to talk about that no one else has monopolized; it is like making a new path in the trackless woods, blazing the trail where no foot has pressed before. I am glad to take you by the hand and lead you along an untrodden way into a world where the hand is supreme. But at the very outset we encounter a difficulty. You are so accustomed to light, I fear you will stumble when I try to guide you through the land of darkness and silence. The blind are not supposed to be the best of guides. Still, though I cannot warrant not to lose you, I promise that you shall not be led into fire or water, or fall into a deep pit. If you will follow me patiently, you will find that “there’s a sound so fine, nothing lives ’twixt it and silence,” and that there is more meant in things than meets the eye.

My hand is to me what your hearing and sight together are to you. In large measure we travel the same highways, read the same books, speak the same language, yet our experiences are

different. All my comings and goings turn on the hand as on a pivot. It is the hand that binds me to the world of men and women. The hand is my feeler with which I reach through isolation and darkness and seize every pleasure, every activity that my fingers encounter. With the dropping of a little word from another's hand into mine, a slight flutter of the fingers, began the intelligence, the joy, the fullness of my life. Like Job, I feel as if a hand had made me, fashioned me together round about and molded my very soul.

In all my experiences and thoughts I am conscious of a hand. Whatever moves me, whatever thrills me, is as a hand that touches me in the dark, and that touch is my reality. You might as well say that a sight which makes you glad, or a blow which brings the stinging tears to your eyes, is unreal as to say that those impressions are unreal which I have accumulated by means of touch. The delicate tremble of a butterfly's wings in my hand, the soft petals of violets curling in the cool folds of their leaves or lifting sweetly out of the meadow-grass, the clear, firm outline of face and limb, the smooth arch of a horse's neck and the velvety touch of his nose—all these, and a thousand resultant combinations, which take shape in my mind, constitute my world.

Ideas make the world we live in, and impressions furnish ideas. My world is built of touch-sensations, devoid of physical color and sound; but without color and sound it breathes and throbs with life. Every object is associated in my mind with tactual qualities which, combined in countless ways, give me a sense of power, of beauty, or of incongruity: for with my hands I can feel the comic as well as the beautiful in the outward appearance of things. Remember that you, dependent on your sight, do not realize how many things are tangible. All palpable things are mobile or rigid, solid or liquid, big or small, warm or cold, and these qualities are variously modified. The coolness of a water-lily rounding into bloom is different from the coolness of an evening wind in summer, and different again from the coolness of the rain that soaks into the hearts of growing things and gives them life and body. The velvet of the rose is not that of a ripe peach or of a baby's dimpled cheek. The hardness of the rock is to the hardness of wood what a man's deep bass is to a

woman's voice when it is low. What I call beauty I find in certain combinations of all these qualities, and is largely derived from the flow of curved and straight lines which is over all things.

"What does the straight line mean to you?" I think you will ask.

It *means* several things. It symbolizes duty. It seems to have the quality of inexorableness that duty has. When I have something to do that must not be set aside, I feel as if I were going forward in a straight line, bound to arrive somewhere, or go on forever without swerving to the right or to the left.

That is what it means. To escape this moralizing you should ask, "How does the straight line feel?" It feels, as I suppose it looks, straight—a dull thought drawn out endlessly. Eloquence to the touch resides not in straight lines, but in unstraight lines, or in many curved and straight lines together. They appear and disappear, are now deep, now shallow, now broken off or lengthened or swelling. They rise and sink beneath my fingers, they are full of sudden starts and pauses, and their variety is inexhaustible and wonderful. So you see I am not shut out from the region of the beautiful, though my hand cannot perceive the brilliant colors in the sunset or on the mountain, or reach into the blue depths of the sky.

Physics tells me that I am well off in a world which, I am told, knows neither color nor sound, but is made in terms of size, shape, and inherent qualities; for at least every object appears to my fingers standing solidly right side up, and is not an inverted image on the retina which, I understand, your brain is at infinite though unconscious labor to set back on its feet. A tangible object passes complete into my brain with the warmth of life upon it, and occupies the same place that it does in space; for, without egotism, the mind is as large as the universe. When I think of hills, I think of the upward strength I tread upon. When water is the object of my thought, I feel the cool shock of the plunge and the quick yielding of the waves that crisp and curl and ripple about my body. The pleasing changes of rough and smooth, pliant and rigid, curved and straight in the bark and branches of a tree give the truth to my hand. The immovable rock, with its juts and warped surface, bends beneath my fingers

into all manner of grooves and hollows. The bulge of a watermelon and the puffed-up rotundities of squashes that sprout, bud, and ripen in that strange garden planted somewhere behind my finger-tips are the ludicrous in my tactual memory and imagination. My fingers are tickled to delight by the soft ripple of a baby's laugh, and find amusement in the lusty crow of the barnyard autocrat. Once I had a pet rooster that used to perch on my knee and stretch his neck and crow. A bird in my hand was then worth two in the—barnyard.

My fingers cannot, of course, get the impression of a large whole at a glance; but I feel the parts, and my mind puts them together. I move around my house, touching object after object in order, before I can form an idea of the entire house. In other people's houses I can touch only what is shown me—the chief objects of interest, carvings on the wall, or a curious architectural feature, exhibited like the family album. Therefore a house with which I am not familiar has for me, at first, no general effect or harmony of detail. It is not a complete conception, but a collection of object-impressions which, as they come to me, are disconnected and isolated. But my mind is full of associations, sensations, theories, and with them it constructs the house. The process reminds me of the building of Solomon's temple, where was neither saw, nor hammer, nor any tool heard while the stones were being laid one upon another. The silent worker is imagination which decrees reality out of chaos.

Without imagination what a poor thing my world would be! My garden would be a silent patch of earth strewn with sticks of a variety of shapes and smells. But when the eye of my mind is opened to its beauty, the bare ground brightens beneath my feet, and the hedge-row bursts into leaf, and the rose-tree shakes its fragrance everywhere. I know how budding trees look, and I enter into the amorous joy of the mating birds, and this is the miracle of imagination.

Twofold is the miracle when, through my fingers, my imagination reaches forth and meets the imagination of an artist which he has embodied in a sculptured form. Although, compared with the life-warm, mobile face of a friend, the marble is cold and pulseless and unresponsive, yet it is beautiful to

my hand. Its flowing curves and bendings are a real pleasure; only breath is wanting; but under the spell of the imagination the marble thrills and becomes the divine reality of the ideal. Imagination puts a sentiment into every line and curve, and the statue in my touch is indeed the goddess herself who breathes and moves and enchants.

It is true, however, that some sculptures, even recognized masterpieces, do not please my hand. When I touch what there is of the Winged Victory, it reminds me at first of a headless, limbless dream that flies towards me in an unrestful sleep. The garments of the Victory thrust stiffly out behind, and do not resemble garments that I have felt flying, fluttering, folding, spreading in the wind. But imagination fulfils these imperfections, and straightway the Victory becomes a powerful and spirited figure with the sweep of sea-winds in her robes and the splendor of conquest in her wings.

I find in a beautiful statue perfection of bodily form, the qualities of balance and completeness. The Minerva, hung with a web of poetical allusion, gives me a sense of exhilaration that is almost physical; and I like the luxuriant, wavy hair of Bacchus and Apollo, and the wreath of ivy, so suggestive of pagan holidays.

So imagination crowns the experience of my hands. And they learned their cunning from the wise hand of another, which, itself guided by imagination, led me safely in paths that I knew not, made darkness light before me, and made crooked ways straight.

II. The Hands of Others

THE warmth and protectiveness of the hand are most homefelt to me who have always looked to it for aid and joy. I understand perfectly how the Psalmist can lift up his voice with strength and gladness, singing, "I put my trust in the Lord at all times, and his hand shall uphold me, and I shall dwell in safety." In the strength of the human hand, too, there is something divine. I am told that the glance of a beloved eye thrills one from a distance; but there is no distance in the touch of a beloved hand. Even the letters I receive are—

Kind letters that betray the heart's deep history,
In which we feel the presence of a hand.

It is interesting to observe the differences in the hands of people. They show all kinds of vitality, energy, stillness, and cordiality. I never realized how living the hand is until I saw those chill plaster images in Mr. Hutton's collection of casts. The hand I know in life has the fullness of blood in its veins, and is elastic with spirit. How different dear Mr. Hutton's hand was from its dull, insensate image! To me the cast lacks the very form of the hand. Of the many casts in Mr. Hutton's collection I did not recognize any, not even my own. But a loving hand I never forget. I remember in my fingers the large hands of Bishop Brooks, brimful of tenderness and a strong man's joy. If you were deaf and blind, and could have held Mr. Jefferson's hand, you would have seen in it a face and heard a kind voice unlike any other you have known. Mark Twain's hand is full of whimsies and the

drollest humors, and while you hold it the drollery changes to sympathy and championship.

I am told that the words I have just written do not "describe" the hands of my friends, but merely endow them with the kindly human qualities which I know they possess, and which language conveys in abstract words. The criticism implies that I am not giving the primary truth of what I feel; but how otherwise do descriptions in books I read, written by men who can see, render the visible look of a face? I read that a face is strong, gentle; that it is full of patience, of intellect; that it is fine, sweet, noble, beautiful. Have I not the same right to use these words in describing what I feel as you have in describing what you see? They express truly what I feel in the hand. I am seldom conscious of physical qualities, and I do not remember whether the fingers of a hand are short or long, or the skin is moist or dry. No more can you, without conscious effort, recall the details of a face, even when you have seen it many times. If you do recall the features, and say that an eye is blue, a chin sharp, a nose short, or a cheek sunken, I fancy that you do not succeed well in giving the impression of the person,—not so well as when you interpret at once to the heart the essential moral qualities of the face—its humor, gravity, sadness, spirituality. If I should tell you in physical terms how a hand feels, you would be no wiser for my account than a blind man to whom you describe a face in detail. Remember that when a blind man recovers his sight, he does not recognize the commonest thing that has been familiar to his touch, the dearest face intimate to his fingers, and it does not help him at all that things and people have been described to him again and again. So you, who are untrained of touch, do not recognize a hand by the grasp; and so, too, any description I might give would fail to make you acquainted with a friendly hand which my fingers have often folded about, and which my affection translates to my memory.

I cannot describe hands under any class or type; there is no democracy of hands. Some hands tell me that they do everything with the maximum of bustle and noise. Other hands are fidgety and unadvised, with nervous, fussy fingers which

indicate a nature sensitive to the little pricks of daily life. Sometimes I recognize with foreboding the kindly but stupid hand of one who tells with many words news that is no news. I have met a bishop with a jocose hand, a humorist with a hand of leaden gravity, a man of pretentious valor with a timorous hand, and a quiet, apologetic man with a fist of iron. When I was a little girl I was taken to see¹ a woman who was blind and paralyzed. I shall never forget how she held out her small, trembling hand and pressed sympathy into mine. My eyes fill with tears as I think of her. The weariness, pain, darkness, and sweet patience were all to be felt in her thin, wasted, groping, loving hand.

Few people who do not know me will understand, I think, how much I get of the mood of a friend who is engaged in oral conversation with somebody else. My hand follows his motions; I touch his hand, his arm, his face. I can tell when he is full of glee over a good joke which has not been repeated to me, or when he is telling a lively story. One of my friends is rather aggressive, and his hand always announces the coming of a dispute. By his impatient jerk I know he has argument ready for some one. I have felt him start as a sudden recollection or a new idea shot through his mind. I have felt grief in his hand. I have felt his soul wrap itself in darkness majestically as in a garment. Another friend has positive, emphatic hands which show great pertinacity of opinion. She is the only person I know who emphasizes her spelled words and accents them as she emphasizes and accents her spoken words when I read her lips. I like this varied emphasis better than the monotonous pound of unmodulated people who hammer their meaning into my palm.

Some hands, when they clasp yours, beam and bubble over with gladness. They throb and expand with life. Strangers have clasped my hand like that of a long-lost sister. Other people shake hands with me as if with the fear that I may do them

¹ The excellent proof-reader has put a query to my use of the word "see." If I had said "visit," he would have asked no questions, yet what does "visit" mean but "see" (*visitare*)? Later I will try to defend myself for using as much of the English language as I have succeeded in learning.

mischievous. Such persons hold out civil finger-tips which they permit you to touch, and in the moment of contact they retreat, and inwardly you hope that you will not be called upon again to take that hand of "dormouse valor." It betokens a prudish mind, ungracious pride, and not seldom mistrust. It is the antipode to the hand of those who have large, lovable natures.

The handshake of some people makes you think of accident and sudden death. Contrast this ill-boding hand with the quick, skilful, quiet hand of a nurse whom I remember with affection because she took the best care of my teacher. I have clasped the hands of some rich people that spin not and toil not, and yet are not beautiful. Beneath their soft, smooth roundness what a chaos of undeveloped character!

I am sure there is no hand comparable to the physician's in patient skill, merciful gentleness and splendid certainty. No wonder that Ruskin finds in the sure strokes of the surgeon the perfection of control and delicate precision for the artist to emulate. If the physician is a man of great nature, there will be healing for the spirit in his touch. This magic touch of well-being was in the hand of a dear friend of mine who was our doctor in sickness and health. His happy cordial spirit did his patients good whether they needed medicine or not.

As there are many beauties of the face, so the beauties of the hand are many. Touch has its ecstasies. The hands of people of strong individuality and sensitiveness are wonderfully mobile. In a glance of their finger-tips they express many shades of thought. Now and again I touch a fine, graceful, supple-wristed hand which spells with the same beauty and distinction that you must see in the handwriting of some highly cultivated people. I wish you could see how prettily little children spell in my hand. They are wild flowers of humanity, and their finger motions wild flowers of speech.

All this is my private science of palmistry, and when I tell your fortune it is by no mysterious intuition or Gipsy witchcraft, but by natural, explicable recognition of the embossed character in your hand. Not only is the hand as easy to recognize as the face, but it reveals its secrets more openly and unconsciously.

People control their countenances, but the hand is under no such restraint. It relaxes and becomes listless when the spirit is low and dejected; the muscles tighten when the mind is excited or the heart glad; and permanent qualities stand written on it all the time.

III. The Hand of the Race

LOOK in your "Century Dictionary," or if you are blind, ask your teacher to do it for you, and learn how many idioms are made on the idea of hand, and how many words are formed from the Latin root *manus*—enough words to name all the essential affairs of life. "Hand," with quotations and compounds, occupies twenty-four columns, eight pages of this dictionary. The hand is defined as "the organ of apprehension." How perfectly the definition fits my case in both senses of the word "apprehend"! With my hand I seize and hold all that I find in the three worlds—physical, intellectual, and spiritual.

Think how man has regarded the world in terms of the hand. All life is divided between what lies *on one hand* and on the other. The products of skill are *manufactures*. The conduct of affairs is *management*. History seems to be the record—alas for our chronicles of war!—of the *manœuvres* of armies. But the history of peace, too, the narrative of labor in the field, the forest, and the vineyard, is written in the victorious sign *manual*—the sign of the hand that has conquered the wilderness. The laborer himself is called a *hand*. In *manacle* and *manumission* we read the story of human slavery and freedom.

The minor idioms are myriad; but I will not recall too many, lest you cry, "Hands off!" I cannot desist, however, from this word-game until I have set down a few. Whatever is not one's own by first possession is *second-hand*. That is what I am told my knowledge is. But my well-meaning friends come to my defense, and, not content with endowing me with natural *first-hand* knowledge which is rightfully mine, ascribe to me a preternatural sixth sense and credit to miracles and heaven-sent compensations

all that I have won and discovered with my good right hand. And with my left hand too; for with that I read, and it is as true and honorable as the other. By what half-development of human power has the left hand been neglected? When we arrive at the acme of civilization shall we not all be ambidextrous, and in our *hand-to-hand* contests against difficulties shall we not be doubly triumphant? It occurs to me, by the way, that when my teacher was training my unreclaimed spirit, her struggle against the powers of darkness, with the stout arm of discipline and the light of the manual alphabet, was in two senses a hand-to-hand conflict.

No essay would be complete without quotations from Shakespeare. In the field which, in the presumption of my youth, I thought was my own he has reaped before me. In almost every play there are passages where the hand plays a part. Lady Macbeth's heartbroken soliloquy over her little hand, from which all the perfumes of Arabia will not wash the stain, is the most pitiful moment in the tragedy. Mark Antony rewards Scarus, the bravest of his soldiers, by asking Cleopatra to give him her hand: "Commend unto his lips thy favoring hand." In a different mood he is enraged because Thyreus, whom he despises, has presumed to kiss the hand of the queen, "my playfellow, the kingly seal of high hearts." When Cleopatra is threatened with the humiliation of gracing Cæsar's triumph, she snatches a dagger, exclaiming, "I will trust my resolution and my good hands." With the same swift instinct, Cassius trusts to his hands when he stabs Cæsar: "Speak, hands, for me!" "Let me kiss your hand," says the blind Gloster to Lear. "Let me wipe it first," replies the broken old king; "it smells of mortality." How charged is this single touch with sad meaning! How it opens our eyes to the fearful purging Lear has undergone, to learn that royalty is no defense against ingratitude and cruelty! Gloster's exclamation about his son, "Did I but live to see thee in my touch, I'd say I had eyes again," is as true to a pulse within me as the grief he feels. The ghost in "Hamlet" recites the wrongs from which springs the tragedy:

Thus was I, sleeping, by a brother's hand.
At once of life, of crown, of queen dispatch'd.

How that passage in "Othello" stops your breath—that passage full of bitter double intention in which Othello's suspicion tips with evil what he says about Desdemona's hand; and she in innocence answers only the innocent meaning of his words: "For 't was that hand that gave away my heart."

Not all Shakespeare's great passages about the hand are tragic. Remember the light play of words in "Romeo and Juliet" where the dialogue, flying nimbly back and forth, weaves a pretty sonnet about the hand. And who knows the hand, if not the lover?

The touch of the hand is in every chapter of the Bible. Why, you could almost rewrite Exodus as the story of the hand. Everything is done by the hand of the Lord and of Moses. The oppression of the Hebrews is translated thus: "The hand of Pharaoh was heavy upon the Hebrews." Their departure out of the land is told in these vivid words: "The Lord brought the children of Israel out of the house of bondage with a strong hand and a stretched-out arm." At the stretching out of the hand of Moses the waters of the Red Sea part and stand all on a heap. When the Lord lifts his hand in anger, thousands perish in the wilderness. Every act, every decree in the history of Israel, as indeed in the history of the human race, is sanctioned by the hand. Is it not used in the great moments of swearing, blessing, cursing, smiting, agreeing, marrying, building, destroying? Its sacredness is in the law that no sacrifice is valid unless the sacrificer lay his hand upon the head of the victim. The congregation lay their hands on the heads of those who are sentenced to death. How terrible the dumb condemnation of their hands must be to the condemned! When Moses builds the altar on Mount Sinai, he is commanded to use no tool, but rear it with his own hands. Earth, sea, sky, man, and all lower animals are holy unto the Lord because he has formed them with his hand. When the Psalmist considers the heavens and the earth, he exclaims: "What is man, O Lord, that thou art mindful of him? For thou hast made him to have dominion over the works of thy hands." The supplicating gesture of the hand always accompanies the spoken prayer, and with clean hands goes the pure heart.

Christ comforted and blessed and healed and wrought many

miracles with his hands. He touched the eyes of the blind, and they were opened. When Jairus sought him, overwhelmed with grief, Jesus went and laid his hands on the ruler's daughter, and she awoke from the sleep of death to her father's love. You also remember how he healed the crooked woman. He said to her, "Woman, thou art loosed from thine infirmity," and he laid his hands on her, and immediately she was made straight, and she glorified God.

Look where we will, we find the hand in time and history, working, building, inventing, bringing civilization out of barbarism. The hand symbolizes power and the excellence of work. The mechanic's hand, that minister of elemental forces, the hand that hews, saws, cuts, builds, is useful in the world equally with the delicate hand that paints a wild flower or molds a Grecian urn, or the hand of a statesman that writes a law. The eye cannot say to the hand, "I have no need of thee." Blessed be the hand! Thrice blessed be the hands that work!

IV. The Power of Touch

SOME months ago, in a newspaper which announced the publication of the “Matilda Ziegler Magazine for the Blind,” appeared the following paragraph:

“Many poems and stories must be omitted because they deal with sight. Allusion to moonbeams, rainbows, starlight, clouds, and beautiful scenery may not be printed, because they serve to emphasize the blind man’s sense of his affliction.”

That is to say, I may not talk about beautiful mansions and gardens because I am poor. I may not read about Paris and the West Indies because I cannot visit them in their territorial reality. I may not dream of heaven because it is possible that I may never go there. Yet a venturesome spirit impels me to use words of sight and sound whose meaning I can guess only from analogy and fancy. This hazardous game is half the delight, the frolic, of daily life. I glow as I read of splendors which the eye alone can survey. Allusions to moonbeams and clouds do not emphasize the sense of my affliction: they carry my soul beyond affliction’s narrow actuality.

Critics delight to tell us what we cannot do. They assume that blindness and deafness sever us completely from the things which the seeing and the hearing enjoy, and hence they assert we have no moral right to talk about beauty, the skies, mountains, the song of birds, and colors. They declare that the very sensations we have from the sense of touch are “vicarious,” as though our friends felt the sun for us! They deny *a priori* what they have not seen and I have felt. Some brave doubters have gone so far even as to deny my existence. In order, therefore, that I may know that I exist, I resort to Descartes’s

method: "I think, therefore I am." Thus I am metaphysically established, and I throw upon the doubters the burden of proving my non-existence. When we consider how little has been found out about the mind, is it not amazing that any one should presume to define what one can know or cannot know? I admit that there are innumerable marvels in the visible universe unguessed by me. Likewise, O confident critic, there are a myriad sensations perceived by me of which you do not dream.

Necessity gives to the eye a precious power of seeing, and in the same way it gives a precious power of feeling to the whole body. Sometimes it seems as if the very substance of my flesh were so many eyes looking out at will upon a world new created every day. The silence and darkness which are said to shut me in, open my door most hospitably to countless sensations that distract, inform, admonish, and amuse. With my three trusty guides, touch, smell, and taste, I make many excursions into the borderland of experience which is in sight of the city of Light. Nature accommodates itself to every man's necessity. If the eye is maimed, so that it does not see the beautiful face of day, the touch becomes more poignant and discriminating. Nature proceeds through practice to strengthen and augment the remaining senses. For this reason the blind often hear with greater ease and distinctness than other people. The sense of smell becomes almost a new faculty to penetrate the tangle and vagueness of things. Thus, according to an immutable law, the senses assist and reinforce one another.

It is not for me to say whether we see best with the hand or the eye. I only know that the world I see with my fingers is alive, ruddy, and satisfying. Touch brings the blind many sweet certainties which our more fortunate fellows miss, because their sense of touch is uncultivated. When they look at things, they put their hands in their pockets. No doubt that is one reason why their knowledge is often so vague, inaccurate, and useless. It is probable, too, that our knowledge of phenomena beyond the reach of the hand is equally imperfect. But, at all events, we behold them through a golden mist of fantasy.

There is nothing, however, misty or uncertain about what we can touch. Through the sense of touch I know the faces of friends, the illimitable variety of straight and curved lines, all surfaces, the exuberance of the soil, the delicate shapes of flowers, the noble forms of trees, and the range of mighty winds. Besides objects, surfaces, and atmospherical changes, I perceive countless vibrations. I derive much knowledge of everyday matter from the jars and jolts which are to be felt everywhere in the house.

Footsteps, I discover, vary tactually according to the age, the sex, and the manners of the walker. It is impossible to mistake a child's patter for the tread of a grown person. The step of the young man, strong and free, differs from the heavy, sedate tread of the middle-aged, and from the step of the old man, whose feet drag along the floor, or beat it with slow, faltering accents. On a bare floor a girl walks with a rapid, elastic rhythm which is quite distinct from the graver step of the elderly woman. I have laughed over the creak of new shoes and the clatter of a stout maid performing a jig in the kitchen. One day, in the dining-room of a hotel, a tactual dissonance arrested my attention. I sat still and listened with my feet. I found that two waiters were walking back and forth, but not with the same gait. A band was playing, and I could feel the music-waves along the floor. One of the waiters walked in time to the band, graceful and light, while the other disregarded the music and rushed from table to table to the beat of some discord in his own mind. Their steps reminded me of a spirited war-steed harnessed with a cart-horse.

Often footsteps reveal in some measure the character and the mood of the walker. I feel in them firmness and indecision, hurry and deliberation, activity and laziness, fatigue, carelessness, timidity, anger, and sorrow. I am most conscious of these moods and traits in persons with whom I am familiar.

Footsteps are frequently interrupted by certain jars and jerks, so that I know when one kneels, kicks, shakes something, sits down, or gets up. Thus I follow to some extent the actions of people about me and the changes of their postures. Just now a thick, soft patter of bare, padded feet and a slight jolt told me

that my dog had jumped on the chair to look out of the window. I do not, however, allow him to go uninvestigated; for occasionally I feel the same motion, and find him, not on the chair, but trespassing on the sofa.

When a carpenter works in the house or in the barn near by, I know by the slanting, up-and-down, toothed vibration, and the ringing concussion of blow upon blow, that he is sawing or hammering. If I am near enough, a certain vibration, traveling back and forth along a wooden surface, brings me the information that he is using a plane.

A slight flutter on the rug tells me that a breeze has blown my papers off the table. A round thump is a signal that a pencil has rolled on the floor. If a book falls, it gives a flat thud. A wooden rap on the balustrade announces that dinner is ready. Many of these vibrations are obliterated out of doors. On a lawn or the road, I can feel only running, stamping, and the rumble of wheels.

By placing my hand on a person's lips and throat, I gain an idea of many specific vibrations, and interpret them: a boy's chuckle, a man's "Whew!" of surprise, the "Hem!" of annoyance or perplexity, the moan of pain, a scream, a whisper, a rasp, a sob, a choke, and a gasp. The utterances of animals, though wordless, are eloquent to me—the cat's purr, its mew, its angry, jerky, scolding spit; the dog's bow-wow of warning or of joyous welcome, its yelp of despair, and its contented snore; the cow's moo; a monkey's chatter; the snort of a horse; the lion's roar, and the terrible snarl of the tiger. Perhaps I ought to add, for the benefit of the critics and doubters who may peruse this essay, that with my own hand I have felt all these sounds. From my childhood to the present day I have availed myself of every opportunity to visit zoölogical gardens, menageries, and the circus, and all the animals, except the tiger, have talked into my hand. I have touched the tiger only in a museum, where he is as harmless as a lamb. I have, however, heard him talk by putting my hand on the bars of his cage. I have touched several lions in the flesh, and felt them roar royally, like a cataract over rocks.

To continue, I know the *plop* of liquid in a pitcher. So if I spill

my milk, I have not the excuse of ignorance. I am also familiar with the pop of a cork, the sputter of a flame, the tick-tack of the clock, the metallic swing of the windmill, the labored rise and fall of the pump, the voluminous spurt of the hose, the deceptive tap of the breeze at door and window, and many other vibrations past computing.

There are tactual vibrations which do not belong to skin-touch. They penetrate the skin, the nerves, the bones, like pain, heat, and cold. The beat of a drum smites me through from the chest to the shoulder-blades. The din of the train, the bridge, and grinding machinery retains its "old-man-of-the-sea" grip upon me long after its cause has been left behind. If vibration and motion combine in my touch for any length of time, the earth seems to run away while I stand still. When I step off the train, the platform whirls round, and I find it difficult to walk steadily.

Every atom of my body is a vibroscope. But my sensations are not infallible. I reach out, and my fingers meet something furry, which jumps about, gathers itself together as if to spring, and acts like an animal. I pause a moment for caution. I touch it again more firmly, and find it is a fur coat fluttering and flapping in the wind. To me, as to you, the earth seems motionless, and the sun appears to move; for the rays of the afternoon withdraw more and more, as they touch my face, until the air becomes cool. From this I understand how it is that the shore seems to recede as you sail away from it. Hence I feel no incredulity when you say that parallel lines appear to converge, and the earth and sky to meet. My few senses long ago revealed to me their imperfections and deceptivity.

Not only are the senses deceptive, but numerous usages in our language indicate that people who have five senses find it difficult to keep their functions distinct. I understand that we hear views, see tones, taste music. I am told that voices have color. Tact, which I had supposed to be a matter of nice perception, turns out to be a matter of taste. Judging from the large use of the word, taste appears to be the most important of all the senses. Taste governs the great and small

conventions of life. Certainly the language of the senses is full of contradictions, and my fellows who have five doors to their house are not more surely at home in themselves than I. May I not, then, be excused if this account of my sensations lacks precision?

V. The Finer Vibrations

I HAVE spoken of the numerous jars and jolts which daily minister to my faculties. The loftier and grander vibrations which appeal to my emotions are varied and abundant. I listen with awe to the roll of the thunder and the muffled avalanche of sound when the sea flings itself upon the shore. And I love the instrument by which all the diapasons of the ocean are caught and released in surging floods—the many-voiced organ. If music could be seen, I could point where the organ-notes go, as they rise and fall, climb up and up, rock and sway, now loud and deep, now high and stormy, anon soft and solemn, with lighter vibrations interspersed between and running across them. I should say that organ-music fills to an ecstasy the act of feeling.

There is tangible delight in other instruments, too. The violin seems beautifully alive as it responds to the lightest wish of the master. The distinction between its notes is more delicate than between the notes of the piano.

I enjoy the music of the piano most when I touch the instrument. If I keep my hand on the piano-case, I detect tiny quavers, returns of melody, and the hush that follows. This explains to me how sound can die away to the listening ear:

... How thin and clear,
And thinner, clearer, farther going!
O sweet and far from cliff and scar
The horns of Elfland faintly blowing!

I am able to follow the dominant spirit and mood of the music. I catch the joyous dance as it bounds over the keys, the slow

dirge, the reverie. I thrill to the fiery sweep of notes crossed by thunderous tones in the "Walküre," where *Wotan* kindles the dread flames that guard the sleeping *Brunhild*. How wonderful is the instrument on which a great musician sings with his hands! I have never succeeded in distinguishing one composition from another. I think this is possible; but the concentration and strain upon my attention would be so great that I doubt if the pleasure derived would be commensurate to the effort.

Nor can I distinguish easily a tune that is sung. But by placing my hand on another's throat and cheek, I enjoy the changes of the voice. I know when it is low or high, clear or muffled, sad or cheery. The thin, quavering sensation of an old voice differs in my touch from the sensation of a young voice. A Southerner's drawl is quite unlike the Yankee twang. Sometimes the flow and ebb of a voice is so enchanting that my fingers quiver with exquisite pleasure, even if I do not understand a word that is spoken.

On the other hand, I am exceedingly sensitive to the harshness of noises like grinding, scraping, and the hoarse creak of rusty locks. Fog-whistles are my vibratory nightmares. I have stood near a bridge in process of construction, and felt the tactual din, the rattle of heavy masses of stone, the roll of loosened earth, the rumble of engines, the dumping of dirt-cars, the triple blows of vulcan hammers. I can also smell the fire-pots, the tar and cement. So I have a vivid idea of mighty labors in steel and stone, and I believe that I am acquainted with all the fiendish noises which can be made by man or machinery. The whack of heavy falling bodies, the sudden shivering splinter of chopped logs, the crystal shatter of pounded ice, the crash of a tree hurled to the earth by a hurricane, the irrational, persistent chaos of noise made by switching freight-trains, the explosion of gas, the blasting of stone, and the terrific grinding of rock upon rock which precedes the collapse—all these have been in my touch-experience, and contribute to my idea of Bedlam, of a battle, a waterspout, an earthquake, and other enormous accumulations of sound.

Touch brings me into contact with the traffic and manifold activity of the city. Besides the bustle and crowding of people

and the nondescript grating and electric howling of street-cars, I am conscious of exhalations from many different kinds of shops; from automobiles, drays, horses, fruit stands, and many varieties of smoke.

Odors strange and musty,
 The air sharp and dusty
 With lime and with sand,
 That no one can stand,
 Make the street impassable,
 The people irascible,
 Until every one cries,
 As he trembling goes
 With the sight of his eyes
 And the scent of his nose
 Quite stopped—or at least much diminished—
 “Gracious! when will this city be finished?”¹

The city is interesting; but the tactual silence of the country is always most welcome after the din of town and the irritating concussions of the train. How noiseless and undisturbing are the demolition, the repairs and the alterations, of nature! With no sound of hammer or saw or stone severed from stone, but a music of rustles and ripe thumps on the grass come the fluttering leaves and mellow fruits which the wind tumbles all day from the branches. Silently all droops, all withers, all is poured back into the earth that it may recreate; all sleeps while the busy architects of day and night ply their silent work elsewhere. The same serenity reigns when all at once the soil yields up a newly wrought creation. Softly the ocean of grass, moss, and flowers rolls surge upon surge across the earth. Curtains of foliage drape the bare branches. Great trees make ready in their sturdy hearts to receive again birds which occupy their spacious chambers to the south and west. Nay, there is no place so lowly that it may not lodge some happy creature. The meadow brook undoes its icy fetters with rippling notes, gurgles, and runs free. And all

¹ George Arnold.

this is wrought in less than two months to the music of nature's orchestra, in the midst of balmy incense.

The thousand soft voices of the earth have truly found their way to me—the small rustle in tufts of grass, the silky swish of leaves, the buzz of insects, the hum of bees in blossoms I have plucked, the flutter of a bird's wings after his bath, and the slender rippling vibration of water running over pebbles. Once having been felt, these loved voices rustle, buzz, hum, flutter, and ripple in my thought forever, an undying part of happy memories.

Between my experiences and the experiences of others there is no gulf of mute space which I may not bridge. For I have endlessly varied, instructive contacts with all the world, with life, with the atmosphere whose radiant activity enfolds us all. The thrilling energy of the all-encasing air is warm and rapturous. Heat-waves and sound-waves play upon my face in infinite variety and combination, until I am able to surmise what must be the myriad sounds that my senseless ears have not heard.

The air varies in different regions, at different seasons of the year, and even different hours of the day. The odorous, fresh sea-breezes are distinct from the fitful breezes along river banks, which are humid and freighted with inland smells. The bracing, light, dry air of the mountains can never be mistaken for the pungent salt air of the ocean. The air of winter is dense, hard, compressed. In the spring it has new vitality. It is light, mobile, and laden with a thousand palpitating odors from earth, grass, and sprouting leaves. The air of midsummer is dense, saturated, or dry and burning, as if it came from a furnace. When a cool breeze brushes the sultry stillness, it brings fewer odors than in May, and frequently the odor of a coming tempest. The avalanche of coolness which sweeps through the low-hanging air bears little resemblance to the stinging coolness of winter.

The rain of winter is raw, without odor and dismal. The rain of spring is brisk, fragrant, charged with life-giving warmth. I welcome it delightedly as it visits the earth, enriches the streams, waters the hills abundantly, makes the furrows soft with showers for the seed, elicits a perfume which I cannot breathe deep enough. Spring rain is beautiful, impartial, lovable. With pearly

drops it washes every leaf on tree and bush, ministers equally to salutary herbs and noxious growths, searches out every living thing that needs its beneficence.

The senses assist and reinforce each other to such an extent that I am not sure whether touch or smell tells me the most about the world. Everywhere the river of touch is joined by the brooks of odor-perception. Each season has its distinctive odors. The spring is earthy and full of sap. July is rich with the odor of ripening grain and hay. As the season advances, a crisp, dry, mature odor predominates, and golden-rod, tansy, and everlastings mark the onward march of the year. In autumn, soft, alluring scents fill the air, floating from thicket, grass, flower, and tree, and they tell me of time and change, of death and life's renewal, desire and its fulfilment.

VI. Smell, the Fallen Angel

FOR some inexplicable reason the sense of smell does not hold the high position it deserves among its sisters. There is something of the fallen angel about it. When it woos us with woodland scents and beguiles us with the fragrance of lovely gardens, it is admitted frankly to our discourse. But when it gives us warning of something noxious in our vicinity, it is treated as if the demon had got the upper hand of the angel, and is relegated to outer darkness, punished for its faithful service. It is most difficult to keep the true significance of words when one discusses the prejudices of mankind, and I find it hard to give an account of odor-perceptions which shall be at once dignified and truthful.

In my experience smell is most important, and I find that there is high authority for the nobility of the sense which we have neglected and disparaged. It is recorded that the Lord commanded that incense be burnt before him continually with a sweet savor. I doubt if there is any sensation arising from sight more delightful than the odors which filter through sun-warmed, wind-tossed branches, or the tide of scents which swells, subsides, rises again wave on wave, filling the wide world with invisible sweetness. A whiff of the universe makes us dream of worlds we have never seen, recalls in a flash entire epochs of our dearest experience. I never smell daisies without living over again the ecstatic mornings that my teacher and I spent wandering in the fields, while I learned new words and the names of things. Smell is a potent wizard that transports us across a thousand miles and all the years we have lived. The odor of fruits