Another World: Fragments from the Star City of Montalluyah

Benjamin Lumley



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ANOTHER WORLD;

OR

FRAGMENTS FROM THE STAR CITY

OF

MONTALLUYAH.

BY

HERMES.

[Illustration.]

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PREFACE.

The fact that there is a plurality of worlds, that, in other words, the planets of our solar system are inhabited, has been so generally maintained by modern astronomers, that it almost takes its place among the truths commonly accepted by the large body of educated persons. As two among the many works, which bear directly on the subject, it will be here sufficient to name Sir David Brewster's 'More Worlds than One, the Creed of the Philosopher and the Hope of the Christian,' and Mr. B.A. Proctor's 'Other Worlds than Ours.'

A fragmentary account of some of the ways peculiar to the inhabitants of one of these "star worlds," and of their moral and intellectual condition is contained in the following pages.

When the assertion is made that the account is derived, not from the imagination, but from an actual knowledge of the star, it will at first receive scant credence, and the reader will be at once inclined to class the fragments among those works about imaginary republics and imaginary travels which, ever since the days of Plato, have from time to time made their appearance to improve the wisdom, impose on the credulity, or satirize the follies of mankind.

Nor can the reader's anticipated want of faith be deemed other than natural; for, although tests applied daily during a period extending over nearly a lifetime have proved the source of the fragments to be such as is here represented, the Editor feels bound to say that, notwithstanding

much confirmatory evidence, many years passed and many facts were communicated before all doubts were completely removed from his mind.

One great obstacle to the reader's belief that an authentic description of another world is before him will arise from the circumstance that the means by which such extraordinary experience was acquired are not included in the sphere of his knowledge, and that any attempt to explain them at present would only increase his incredulity. He would only see one enigma solved by another apparently more insoluble than itself. The Editor, therefore, would call especial attention to the practical value of the revelations here communicated, convinced as he is that they are so replete with instruction to terrestial mankind, that the difficulty of giving credence to them ought not to be augmented by premature disclosures. Ultimately satisfied as to the origin of the fragments, he entreats the reader not, indeed, to surrender, but simply to suspend his judgment until he has carefully examined them, conceiving that, apart from all external proof, they rest upon an intrinsic evidence, the force of which it will be difficult to resist. Nay, he is even of opinion that an impartial student will find it easier to believe in their planetary origin than in their emanating from an ordinary human brain. The practical value of the facts, considered apart from their source, will excuse his request not to be too hastily judged.

The people to whom the fragments relate are, it will be found, not only human, but constituents of a highly civilized and even polished society. Their notions of good and evil, of happiness and misery correspond to ours, and though they employ different means, the objects they pursue are the same with those sought by terrestrial philanthropists. Health, education, marriage, the removal of disease, the prevention of madness and of crime, the arts of government, the regulation of amusement, the efficient employment of physical forces—themes so often discussed here—have equally occupied the attention of our planetary brethren, although, as will be seen, in the results of our studies we differ not a little. This is not a story of Anthropophagi, or men whose heads do grow beneath their shoulders, which can merely excite wonder, but a record of

actual men, who, widely separated from us in the ocean of space, are beings with whom we can sympathise much more than with the inhabitants of the uncivilized portions of our own globe.

The reader will now begin to understand what is meant when the Editor calls attention to the practical value of most of his communications, and invites consideration of the fragments, as suggestive of much that concerns the welfare of mankind, the question as to their source being provisionally left open. The man of science, the poet, the metaphysician, the philanthropist, the musician, the observer of manners, even the general reader who merely seeks to be amused, will, it is hoped, find something interesting in the following pages. Let all, therefore, taste the fruit and judge of its flavour, though they do not behold the tree; profit by the diamonds, though they know not how they were extracted from the mine; accept what is found to be wholesome and fortifying in the waters, though the source of the river is unknown.

Lest, in thus expatiating on the value of his communications, the Editor should be thought to have overstepped the bounds of good taste, he would have it perfectly understood that he is not speaking of his own productions, and that whatever the merit of the fragments may be, that merit does not belong to himself. He is an Editor and an Editor only; and he therefore feels himself as much at liberty to express his opinion of the contents of the following pages as the most impartial critic.

He will even admit that he is not blind to their defects and shortcomings. If the fragments had been less fragmentary, and fuller information had been offered on the various subjects which fall under consideration, he would have been better satisfied. Nevertheless, he reflects that it would be hardly reasonable to expect in facts made known under exceptional circumstances, that fulness of detail which we have a right to demand, when on our own planet we essay to make discoveries at the cost only of labour and research. He looks upon the fragments as "intellectual aerolites," which have dropped here, uninfluenced by the will of man; as varied pieces detached from the mass of facts which constitute the

possessions of another planet, and rather as thrown by nature into rugged heaps than as having been symmetrically arranged by the hand of an artist. Want of unity under these circumstances is surely excusable.

One observation as to a matter of mere detail. Words, in the language of the Star, are occasionally given in letters which represent the sounds only, and will often be found to resemble words in some of our ancient and modern languages. The very name of the City "Montalluyah," to which all the fragments refer, is apparently compounded of heterogeneous roots, one of Aryan the other of Semitic origin. These seeming accidents, if such they be, must not be attributed to either carelessness or design on the part of the Editor; nor does he attempt to explain them. The reader may, if he please, account for the causes of resemblance by considering that the number of articulate sounds is limited, and that, therefore, the variety of words cannot be altogether boundless; or he may take higher ground, and assume that in whatever planet spoken, all languages have the Same Divine Origin.

In conclusion: When these revelations or others derived from the same source have succeeded in establishing a confidence between the Editor and his readers, it is more than probable that the secret of the source itself will be disclosed. That disclosure made in due season will bring to light some unprecedented, but most interesting facts, and will establish the important truth, that the soul of man is IMMATERIAL and IMMORTAL.

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INTRODUCTION.

By introducing the reader to "Another World," the Editor does not lead him into a region to which the Earth has no affinity. The Planet to which the following fragments refer not only belongs to the same solar system as our own, but also presents like physical aspects. In it, as here, are to be found land and water—mountains, rivers, seas, lakes, hills, valleys, ravines, cataracts alternating with each other; though in consequence of more potent electrical agencies the contrasts between these various objects are frequently abrupt and decided to a degree to which we can here offer no comparison. The other world about to be described is, in fact, essentially another Earth—widely differing, indeed, from ours in its details, but still subjected to the same natural laws. Its inhabitants, like devout persons here, look forward with reverent feeling towards the abode of the blest. To a purely spiritual or angelic region these fragments do not relate.

The name of "Montalluyah," which more immediately belongs to the chief city in the planet, is not incorrectly extended so as to include the entire sphere. This new world is not made up of separate countries and mutually independent states like those of the Earth, but, forming one kingdom, is governed by one supreme Ruler, assisted by twelve kings inferior to him in rank and power.

The speaker in the fragments (which may almost be said to take the form of an autobiography) was the son of one of the twelve kings, who by his genius and worth became "Tootmanyoso," or supreme Ruler. In the planet his name is mentioned with even more reverence than, by different peoples, is paid to that of Zoroaster, Solon, Lycurgus, or Alfred;

but he has this peculiarity that he does not fade, like many other great legislators, into mythical indistinctness, but is himself the exponent of his own polity.

It must not, however, be supposed that this great legislator was the first to rescue his world from mere barbarism. The founder of civilization in Montalluyah seems to have been a very ancient sage named Elikoia, to whom brief reference is made in the following pages. Prior to the reign of our Tootmanyoso the people had passed through various stages of civilization, under the guidance of many wise and good men. Still the polity was defective, for the country remained subject to crime, misery, and disease.

The proverb that "Prevention is better than cure," to which everybody gives unhesitating assent, but which is often forgotten in practice, lies at the root of most of the reforms, both moral and physical, effected by the Tootmanyoso. The policy of prevention—that is, of destroying maladies of mind and body in the germ, before they had been allowed to spread their poison—was one of his leading principles. Under his influence, the physicians of Montalluyah made it less their duty to cure than to prevent disease, therein differing widely from our practitioners, who are not usually called to exercise their skill until a malady has been developed, and has perhaps assumed large proportions.

Under his influence likewise it was thought better to diminish moral evil by extirpating faults in the child, rather than by punishing crimes in the man.

Another prominent feature in the polity of the great Legislator of Montalluyah is the occupation of every person in the intellectual or physical pursuit for which he has been fitted by natural qualifications, developed and fortified by culture. Nobility, position, and wealth are made to depend on merit alone, ascertained by a mechanism which neither favouritism, ignorance, nor accident can affect. These laws may for an instant seem to partake of a democratic tinge; but it will be clearly

perceived that the regulations concerning the institutions of property and marriage are diametrically opposite to those which have rendered the theories of Communists so generally hateful.

Many of the Tootmanyoso's reforms resulted from an application of extraordinary scientific discoveries to the purposes of life. Under the law which determined that the "right man" should, in the most extensive sense of the phrase, always be in the "right place," discoveries were made of which the most acute investigators of earlier times had had no conception, and the newly-acquired ability of wielding electrical, mechanical, and other forces had momentous political consequences. Armed with powers previously unknown, the Tootmanyoso found comparatively easy the successive steps towards the happiness and well-being of his world, where a series of insuperable obstacles would have been presented to the wisest of his predecessors.

Of the physical agencies mentioned in the following pages, that of electricity will be found especially prominent. Both the knowledge and the manipulation of electricity have assumed in Montalluyah proportions far beyond those known to us. The electric fluid is there employed for the most various purposes: for locomotion, for lightening heavy bodies, for increasing the power of optical instruments, for the detection and eradication of the germs of disease, for increasing the efficiency of musical instruments—in a word, for the advancement of the world in all that belongs to morality, science, and art.

To some readers the plural form, "Electricities," which frequently appears in the following pages, might seem a strange innovation. The Editor therefore states, by way of anticipation, that in certain important points the electrical science of Montalluyah differs from, if it is not opposed to, some of the principles accepted here. In Montalluyah it is an ascertained fact that everything organic or inorganic possesses an electricity of its own, each kind differing from the others in one or more important properties. Glimmerings of the progress effected in electricity and other sciences, including the knowledge and application of Sun-power, may be deduced from the facts contained in the fragments. Still, those glimmerings are but as scattered rays of light in the horizon,

which, in the belief of the Editor, are mere precursors of other revelations at least equally interesting. It may be said generally that by the fragments here given, showing how the Narrator, uniting in his own person all the highest qualities of a Legislator and a Ruler, occupied himself with the discovery and application of means for the reduction of evils to their smallest possible proportions, not only giving new laws of wondrous grandeur and beauty, but eventually rendering compliance with them easy and even delightful—that by these fragments a truly stupendous polity is but partially revealed.

The Editor has reason to believe, though it cannot be stated with confidence, that Montalluyah is the world known to us as the planet Mars. Even in the following pages indications will be found of physical features harmonizing with observations made here on that planet. On the other hand, there is the seeming objection, that whereas Mars is more distant than the Earth from the Sun, the Sun appears much smaller, and its heat and light are less intense, on the Earth than in Montalluyah. These facts would, in the first instance, seem to indicate, not a longer, but a shorter distance of Montalluyah from the central luminary, and to point rather to Venus or Mercury than to Mars. But, according to the scientific theories of Montalluyah, the amount of light and heat received from the Sun, and the aspect of that luminary, are governed, not so much by proximity, as by the nature and electricity of the recipient planet and its surrounding atmosphere. In illustration of this point the fact is stated in one of the fragments, that in Montalluyah the power of the telescope is regulated, not by the distance, but by the attractive or repulsive electricity of the planet under observation, and that more power is often required to view a nearer planet than one which is far more distant.

The question as to which of the laws and customs of Montalluyah can be beneficially imitated, wholly or partially, on our Earth, and which of them merely pertain to physical accidents or to a peculiar state of society, will afford matter for reflection. It must not be supposed that, by relating the facts revealed to him, the Editor would recommend all the laws which they suggest as capable of imitation here. Although they are

based on the principle of securing happiness to the community, more especially to its worthiest members, he would no more think of recommending them for adoption in their entirety than of upholding the "Swan-Ship" of Montalluyah as a model for the steamers that cross the Atlantic. Nevertheless, he trusts that his record of the "regulations" of "Another World," even where they do not admit of imitation, may serve to call attention to the evils which they were intended to remedy in Montalluyah, and which certainly nourish in all their bad luxuriance here.

ANOTHER WORLD.

I.

MONTALLUYAH.

> "You forsake this earthly form which goes to dust, but you still live on for ever and ever....

"This life is but the shadow of what your future lives will be."

The Heavens are studded with stars, works of an Almighty Creator; their pale rays give but a feeble indication of the glorious brightness of worlds, many peopled by beings of a beauty, goodness, and power excelling all that human understanding can conceive.

By the grace of Him whose might embraces the universe, I will speak of a star where the inhabitants are formed like the people of the Earth, and as the dawn of day gradually discloses earth's marvellous beauties, so shall my revelations throw light on the customs of that star-world for whose well-being I worked with devoted love.

Some of my world's ways will appear strange to you. Remember that they belong to another planet, another country, another people, so that like wise travellers in a distant land, you should for a time lull your own world's prejudice, and accompany me in thought to Montalluyah, for such is the name of the city where I lived.

I was the son of one of the twelve kings called Tshialosoli, rulers of the country.

These Tshialosoli are less powerful than kings in your world, there being a ruler with full power over them and the whole State, who is called in our language "Tootmanyoso," or "The Father of the World."

All my youthful zeal and strength were applied to study and deep reflection. The most able men were appointed to superintend my education. I outstripped my masters.

The extent of my knowledge, judgment, and foresight filled with wonder the most learned and powerful in the land. Their approving praise did but encourage me onwards in the search for knowledge.

People related everywhere how wondrous were the gifts of the heaven favoured student.

Early inspired by the desire to benefit my fellow-creatures, I often asked myself why, in a world teeming with blessings, so much suffering existed? and why endless riches in the seas, in the air, in the earth, remained unworked as though they did not exist for the use of man?

At that time the state of civilization and knowledge in Montalluyah was in many respects not unlike that of the most civilized countries of your world. The religion of fire had long been replaced by the worship of the living God, and morality and goodness were respected by most, preached by many, and practised by a few.

Wars were waged with relentless cruelty by brother against brother, bad passions ruled, the rich oppressed the poor, and became in turn the victims of their own excesses, and vice, disease, and misery were rampant throughout the land.

We had money of various metals and precious stones. The greed to possess money was the cause of great crimes and loss of power. I asked myself whether men could not be brought to seek knowledge and goodness as ardently as they sought money?

I could not then answer the question, but saw that, could this be done, the boundaries of intelligence being everywhere extended, the discovery of never-ending fructifying resources would follow, with the means also of multiplying those already known.

Notwithstanding wars and pestilence, the numbers of our people had largely increased, whilst our stocks had seriously diminished, and scarcity and dearth afflicted my world.

The increasing numbers of the population would, I saw, become a means of plenty, by supplying additional numbers and power to the phalanx of nature's workmen, each, with redoubled skill fitly applied, joyfully labouring in his sphere to create abundance and secure the general well-being.

I applied myself with unwavering perseverance to the study of humanity and the arts of government, and soon found that like aspirations had ruled many wise and good men in the different ages of my planet. I applied myself to the knowledge of their great wisdom and many precepts, and sought to discover why, notwithstanding the truthfulness and beauty of the golden lessons of these sages, and the eloquence and persuasion of their words, corruption and ruin still so largely prevailed.

Not content with meditating on what had been done and written, I attended the schools, observed the children's ways, and the mode of educating and rearing the husbandmen of Nature's vineyard. I visited the hospitals for the sick, and the theatres of anatomy. I examined into the causes of disease, and the effects of the existing remedies. I visited the prisons, and studied the results of punishment and the causes of crime. I visited the poor in their hovels, the rich in their palaces; I observed mankind in various phases, and as it were dissected men's minds and passions. I saw everywhere never-ending power in man and nature recklessly wasted or turned against the community.

My labours were rewarded by frequent advancement. Honours did but stimulate me to further exertions; the greater I became the more I applied myself, ever thirsting for knowledge and the power of doing

good, till at length, after passing the severest tests, I became Tootmanyoso (Father of the World), and head of the State.

Then indeed my real labours began. Light from Heaven had enabled me to see the causes of the evils afflicting my planet. I had now to apply remedies for changing the poisoned torrents into sources of fertility, refreshment, and delight.

The dangers and obstructions before me were immense. I felt that no unaided mortal power could overcome them; but I was encouraged to believe that, "like a chariot at full speed, which turns a narrow and dangerous corner, so would I pass over my mountains of difficulty, and run free in the wide space beyond."

I resolved with all the concentrated ardour of my soul to persevere.

Day by day I applied myself to the work, and invoked the aid of my Creator.

My harp was my constant companion. I was a great harpist; and when gratitude for some new light choked my utterance, I made the harp speak in accents and in language[1] that gave fresh inspiration to my soul.

> [Footnote 1: Musical sounds in Montalluyah have a meaning as easily understood as spoken words. Our harp is different to yours, and will be described hereafter.]

II.

VYORA.

> "The humble and the proud are equally subject to the decrees of Heaven; and often one is raised and the other brought low."

The system of education which I early inaugurated soon gave to my hand men of wondrous intelligence, fervid and eloquent emissaries, having at heart the success of my doctrines.

These men, themselves convinced, and earnest to convince others, I sent in all directions to prepare the people, and to discover genius and intelligence under whatever garb concealed, for I had determined that all should be encouraged to use their powers for their own and the general good, and be advanced accordingly.

Many things had happened to strengthen this, my early resolve. One incident I will now relate.

A beggar made many attempts to gain admission to my palace, but was turned away with blows; his prayers that he might speak with me were received with derision,—he was looked upon as a madman, and not allowed to pass the outer gate.

This same beggar—Vyora, by name,—saved the life of a little boy, the child of one of my leading men called Usheemee, "Men of truth."

The child would have been crushed to death under the wheels of a chariot, moved by electricity and drawn by fleet horses,[1] had not this same beggar rushed forward, regardless of peril, and saved the boy.

> [Footnote 1: The beauty of our horses, the desire that the chariots should not be cumbersome, and the steep hills everywhere in Montalluyah, are the reasons why electricity is not used alone. When the horses stop, the electric action is suspended, and the momentum is neutralized simultaneously by a governor or regulator.]

The man refused money, and for his sole reward requested that he might be brought into my presence. The father told me of this, which seemed to him the more strange inasmuch as the petitioner refused to say what he required of me.

When brought before me, I asked Vyora what he sought? He replied that his whole desire, his soul's longing, was to be appointed a teacher, that he might instruct youth, and see little children grow wiser around him.

I regarded the man attentively, and put many searching questions. He answered all in a remarkable way, and gave proofs of intellect, knowledge, and perception beyond the masters who had passed through the required ordeals, and was so gentle and modest withal, that it was delightful to speak with him.

The father of Vyora had possessed wealth, but from the cruelty and oppression of an enemy mightier than he, had lost both fortune and life, and at his death left a family dependent on charity.

The widow, a woman of remarkable gifts and keen sensibilities, prostrated by grief, died soon after, carried off suddenly by a disease called, "Karni ferola," "Absorption of the vitality," [1] which at that time baffled the skill of the physicians, who indeed had seldom suspected its presence till the disease was beyond cure.

> [Footnote 1: Answering to "consumption;" this disease is now detected and cured in its germ.]

Vyora, himself an emaciated boy, unfitted for physical labour, was the eldest of many brothers and sisters, who looked up to him in their hunger. He was driven to beg their food.

After the poor man had passed easily all the ordeals, I appointed him "a Character-Diver," to discover the qualities and detect the faults of little children,[2] and raised him from indigence to affluence.

[Footnote 2: See p. 19.]

The ability, industry, and wisdom of the man, and the good he did were beyond all praise, and I soon appointed him head of all the Character-Divers in Montalluyah.

This incident, with many others, engaged my most serious reflection. But for an accident, the powers of a truly superior mind would have been lost to humanity! Vyora was but the type of numbers, evidencing how capriciously wealth and honours were then distributed.

III.

PERSEVERANCE.

> "Go onward! lose not faith. Let the goodness of God support you, and the beauty and fruitfulness of the work cheer you; and when you are blest with success forget not the source whence all blessings come."

Several years passed before my plans were matured. I reduced all to writing. On one side of the page I noted my resolutions, with the means of carrying them out; on the other side, every objection that could be raised: on a third page I wrote down the answers. Every objection was invited, every difficulty anticipated, and every detail thoroughly weighed; nothing was thought too great or too insignificant.

I submitted the whole to my wisest councillors, and encouraged them to speak their inmost thoughts. They were lost in admiration, but entreated me to abandon my design. My life, they said, would be the penalty were I to attempt to carry out any part of my projects.

Some said that the design would be beautiful as the subject of a poem—as the aspiration of a great mind to arrive at an ideal perfection, which could not however be realised until evil itself had ceased to exist. That to attempt to move the Mestua Mountain[1] would be a task not less hopeless: that I might as well endeavour to walk up our great Cataract[2] without being engulfed in the sea of foaming waters! Not one offered encouragement to proceed with the good work.

[Footnote 1: Supposed to be the largest and firmest of mountains, which, since its first upheaving, has resisted the inroads of our mighty seas, as well as the most violent electrical disturbances of our world.]

[Footnote 2: See p. 44.]

Neither their arguments nor their prayers deterred me. I proceeded cautiously, but with a resolution that feared not death.

Aware, however, of the deadly peril besetting me, I selected twelve men, remarkable for wisdom in council and energy in action, on each of whom in succession the authority should devolve if I were cut off. I initiated them into my plans, and thus hoped that one devoted man would always be ready to advance the good work.

Whilst providing for my death, I took measures for protecting my life against any sudden outburst of fury. I turned my palace into a fortress, that I might not be cut off in a moment of sudden unreasoning wrath, that myself and my adherents might not be scoffed at as madmen, and my plans for the good of all retarded, if not wholly frustrated. These motives I proclaimed to the people.

The opposing obstacles were stupendous. I braved death in every shape. I passed one mighty peril only to meet another more formidable, but fearlessly stood every trial, and did not hesitate to act where danger was greatest. Nothing appalled me. I never faltered from my resolves, and after years of mighty struggles, my triumph was complete. I was blessed and adored by all the people, small and great, and my name will live in Montalluyah through all generations.

I gave Laws, and indicated the precautions to be taken to secure their observance. I initiated discoveries. Inexhaustible stores of abundance were called into existence, enriching the poor and making the rich happy in their possessions. And the eventual result of the organization I

completed was the removal of the incentives to war, strife, avarice and other evils, the triumph of good, and the moral and material well-being of the community.

Amongst the many subjects to which I successfully devoted my attention were:

The care and protection of Woman, the development of her capabilities and graces, the preservation and increase of her beauty, Marriage and its incidents.

The birth, growth, and education of the future Man and of the Mother of Men; the enlarging and ennobling the moral and intellectual powers.

Preservation of health—prevention and cure of disease—prolongation of Life, and augmentation of the faculties of appreciation and enjoyment.

The increase of our flocks and herds, and of other sources of supply for the food of man. The discovery and creation of new means of sustenance and the amelioration of the old.

The discovery of the properties of birds, beasts, fishes, insects, reptiles, and creeping things, and their application to the service of man.

The invention of new instruments, the enlargement of the powers of those already known, the development of electrical and mechanical powers, and the subjecting the workings of nature to the uses of man.

The care and protection in health and in sickness of the lower orders, and of those whom nature had not qualified to take care of themselves.

Occupation for all, each according to his capabilities and the bent of his genius, as ascertained and developed by education.

The government of the country; the enlargement and improvement of the cities with a view to the health, comfort, and progressive elevation of the community.

IV.

LIGHT FROM DARKNESS.

"Let the mighty works of God stimulate all to industry."

My task at first seemed never-ending; but good is ever fruitful, and each conquest aided every subsequent effort.

I was greatly assisted in my progress by the knowledge of powers in nature of wondrous value, but permanently effective for good only; secrets to be entrusted to those alone whose goodness, discipline, and self-knowledge enable them to stand firmly against the varied attacks of temptation, and rise above the motives by which men are ordinarily ruled, the chosen High Priests of the Science who would never use for evil purposes the secrets imparted.

Similar powers have been exercised for good in different ages of your planet, but the mighty trust having become known to weak minds was sadly abused, the charm was thus broken and the secret lost; for, when the knowledge of man exceeds certain limits, his power, like that of good angels, can exist only while linked with noble aspirations.

The false prophets who used the dying embers of occult science for vile purposes have been properly looked upon with horror as delegates of evil; for the death-struggle of the expiring secret had wrought great mischief on the earth.

The power which had been entrusted to me was exercised for the good of my planet, and aided me in consummating my plans without bloodshed; those who were deaf to words yielded to influences whose depths could not be fathomed by ordinary vision.

In the system I founded, every one—his natural powers disciplined to that end—is occupied in the pursuit adapted to his genius and inclination, ascertained by ever vigilant and scrutinising observation, and tests ofttimes repeated during his early and later career.

These tests are applied in a variety of forms, and by different examiners, at different times; and there are so many checks and counterchecks, that the boy is effectually protected against the now scarcely possible ignorance or favouritism of "the knowledge testers," and even against himself.

Every one having the occupation most congenial to him, all worked cheerfully in their pursuits; and I was soon aided by a never-ending phalanx of great men. The progress of science was marvellous, for as soon as the impeding obstacles were removed, and we allowed her to be wooed by the lovers of her predilection, Nature seemed to lend herself eagerly to the advances of her votaries.

The precept exhorting all to industry stood at the head of this portion of my laws, but the lesson was no longer needed.

I was indeed ofttimes obliged to exhort to recreations and amusements, and to turn many—particularly men of genius—from the too incessant pursuit of their labours of love.

I set an example in my own person, for I was a frequent attendant at the public games and diversions.

One discovery was pregnant with another; invention followed invention almost in geometrical progression; the secrets of nature were disclosed; and power, being wielded only by men intent on good, disease and crime were soon reduced to almost imperceptible proportions. Wisdom and joy

ruled where before folly and misery prevailed, and towards the end of my reign the happiness of Montalluyah was more like the joys of a celestial star than of a planet inhabited by mortal beings.

When the causes of affliction themselves could not be removed, they were often made to contribute to my world's well-being.

The myriads of insects that formerly ravaged our fields are now intercepted in their work of destruction,[1] their properties having been discovered and applied to purposes redundant with good.

[Footnote 1: See p. 76.]

The hippopotami, who in earlier ages were looked upon as the incarnate enemy of mankind, formerly overran the country, trampling down vegetation, and attacking man and beast. These creatures are now dominated, and their breed is encouraged, for they have become the most valuable of our wild beasts, the hide, fat, and nearly every part of the carcase being applied to very many purposes of the highest utility to my people.[1]

[Footnote 1: See p. 279.]

The advent of "the fever wind," which formerly blew disease amongst the people, now conduces to the healthfulness of those it would otherwise lay low.

The lightning, formerly destructive, impelled—as was told in our legendary lore—by the anger of the Fire God, is rendered innocuous, and collected for use.[2]

[Footnote 2: See Electricity, p. 54.]

The sun's scorching force is compelled to minister to our delights, to assist in our arts and manufactures, to supply a power which cannot otherwise be obtained, and even to protect us from the sometimes too dangerous influence of his own rays.

The sunlight is powerful in our world beyond anything in your Indian or African climates; even the shades are not black, but of a reddish hue.

The sun, going down, leaves a red light, so that, except when at night this is completely shut out from the houses, there is ordinarily no darkness in your sense of the word.

At certain times, however, Montalluyah, both by day and night, is overspread with thick darkness. Formerly, during this visitation, no man could see his neighbour; fear seized the people. They believed it to be the reign of bad spirits, and so it seemed; few dared venture from their houses even to obtain food, and numbers died from terror and exhaustion.

Light is now made to displace darkness, and joyfulness to take the place of mourning.

My scientific men discovered a means by which the causes that produced the darkness are now used to remedy its inconveniences.

The City is made gloriously radiant. Forms of trees, birds, vases of flowers and fruit, fountains, and other designs of many tints and great beauty are transparent with light, rendered more beautiful by combination with a peculiar electricity emitted by the earth—an electricity which, be it observed, is the cause of the darkness.

The very birds by their warbling seem to greet the change, and the trees and flowers emit a more delicious perfume.

There is music and rejoicing everywhere in the City. Many of the electrical amusements provided appear grander from the contrast with the darkness they are made to displace—a contrast scarcely greater than that depicted by our "Nature Delineators" when, in allegory, they paint the present contrasted with past times; the later years of my reign contrasted with the beginning.

V.

CHARACTER-DIVERS.

EDUCATION.

"Let none but skilful workmen elaborate precious material."

Think not that the truly great Vyora was but little honoured by being appointed to an office connected with little children.[1]

[Footnote 1: *Ante*, p. 8.]

The character-divers were entrusted by me with grave duties, on the proper discharge of which depended the enduring success of my polity.

The education of the young of both sexes engaged from the first my deepest study, for I had early convinced myself that the many evils to be eradicated had their stronghold in the mode in which education had been conducted, and soon after the commencement of my reign I put into execution a portion of my laws for making education a powerful lever in the regeneration of my world.

Men of genius had been compelled by ignorance or driven by necessity to follow occupations for which they were not fitted, and which they, indeed, often loathed; the really valuable tendencies of these men, bent in an opposite direction, were allowed to run to waste, or perhaps be used to the injury and destruction of others.

I felt that to do justice to all and effect good incalculable, evil tendencies must be destroyed in their birth, the germs of the imperfections and crimes of the man, detected and eradicated in the child; whilst valuable qualities and good tendencies must be searched out, and effective means devised for their healthful development.

The most ordinary men, those even who would otherwise be swayed by gross passions, would become contented workmen in the cause of good when occupied with pursuits for which nature and education had fitted them; whilst the power and works of men of genius would be many times increased and multiplied if their education were adapted to strengthen and develop their talents, eradicate their faults, and generate auxiliary excellencies.

But how could all this be effected if the first step to so desirable an end were wanting?

In my visits to the schools I had been struck with the fact that little account was taken of the characters of children,—their qualifications and natural tendencies physical or mental: the attempt was to force the boy to the system, not to adapt the system to the boy.

One routine existed for all pupils, whether for the inculcation of the love of study or for the correction of faults. The earnest and passionate nature was treated in the same way as the cold and phlegmatic; the boy of genius or talent, as the dullard; the one who loved, as he who disliked, or had a tendency to dislike, study; the weakly, as the strong. They were all driven together like a flock of sheep, with scarcely any regard to individual capabilities, bent of genius, or physical constitution, which indeed little effort, and that ill-directed, had been made to discover.

I had observed, also, boys with the germs of great genius, who, for want of some minor quality, were rejected and perhaps placed in some lower division, humiliated and discouraged, although with care the deficient quality could have been supplied. The want of this perhaps would make

the boy a recruit to the ranks of evil, or at least unfit him, when a man, for the real business of life. It was the small bolt wanting to enable the machine to do its work properly.

I saw the sad consequences of all this mismanagement.

Many precepts, beautiful indeed in intention, were crammed into the pupil, the process being repeated until they often became irksome, and he was expected to become moral and religious. I saw that precepts were of little use unless those whom they were meant to benefit were educated, fortified, and disciplined in the practical means of observing them.

It was at that time painful to see children, with many good natural tendencies, leave school with bad habits, and vices so marked and developed, that even the exertions of the most skilful physicians, the discourses of the most learned of our clergy, failed to effect a cure.

The first thing necessary was to devise effective—it may be said unerring—means to search out the characters and dispositions of children.

I created the office of "character-divers," and selected for the discharge of its duties eminent men of great sagacity and gentleness, skilled in the knowledge of the mind and heart, their sole occupation being to discover the qualities, tendencies, and incipient faults of children, and act accordingly; to dive, as it were, into the secret imaginings of the child; to detect the early germ of evil, and note the presence of good; to indicate measures for eradicating the one and developing the other.

These character—divers, called in our language "Djarke," are distinct from the masters, called "Zicche," or fathers of knowledge, able men, who have charge of the boys' studies.

The qualities which enable a preceptor to impart literary and scientific knowledge differ widely from those fitted for searching out, discriminating and correcting faults of character, interpreting the real

qualities that nature has implanted in the youthful aspirant, and devising the measures to be taken for correction or development.

Even if the necessary qualities for both duties were united in one master, there would be many objections to the duties being entrusted to the same person.

The character-divers are as it were moral physicians, skilled in the detection and cure of the hidden germs of mental maladies; for, as you will see hereafter, I was not content to wait till a disease, whether of the mind or body, had developed itself, spreading contagious poison through the veins and arteries of society, and propagating evil without end; the germ was destroyed before it had acquired force to injure.

In our planet neither the faults nor the good qualities of children show themselves in the same way; the indications vary in each child according to his temperament and the circumstances in which he may be placed. Faults and qualities are often of a kind seemingly opposed to what they actually demonstrate to the character-diver—particularly in children endowed with genius.

Fair and even beautiful outcroppings are sometimes indications of noxious weeds hidden below the surface. Weeds are not unfrequently born from the very richness and exuberance of the soil, whilst many a dark and seemingly sterile stem conceals the embryo of fruit and flowers which a genial sunshine will call into life and beauty.

These and other considerations demand great—almost constant—attention on the part of the Djarke.

Another reason for separating the two offices of fathers of knowledge and character-divers is that the child's peculiarities are generally shown out of school-hours. Hence, for the purpose of detecting or tracing their real cause, and suggesting the remedy, the character-diver is often obliged to enter into terms of intimacy with the children, particularly those of tender age, to obtain their confidence, perhaps to be their

playmate and friend, that the little ones may be at their ease, conceal nothing, and almost look upon him as they would upon some tame animal.

The younger children with us require more watchfulness and skill in their treatment than those of maturer age. The defects of the young, like incipient disease, are less obvious, and their intelligence is less developed.

VI.

CORRECTION OF FAULTS.

CHARACTER-DIVERS—*continued.*

> "Let the remedies employed be adapted to the complaint and to the constitution of the patient, and be careful that in curing one disease you do not sow the seeds of another more dangerous."

One of the duties of the character-divers is to suggest, and often to carry out, the measures for curing the child, for in our planet the mode of correcting faults is a matter of great solicitude, lest the means adopted, instead of checking and eradicating, tend to confirm and develop the evil tendency, or, it may be, implant other evils more fatal than those eradicated.

The remedies employed for curing the boy's faults vary with his temperament and general characteristics. The same fault would be treated very differently in the stupid and in the intelligent boy. Where there was difficulty of impression, the labour would be like working on stone, whilst the lightest touch and mildest measures will often suffice with the intelligent.

The remedies vary again with the kind, degree, and cause of the fault: take for instance the ordinary fault of laziness. This would be treated very differently when it arose from mental defects—from a tendency to

love other things, great or grovelling, or from a sluggish or overactive digestion.

I may here mention that a general feature in the correction of faults is the absence of violent punishment. We wish to raise and not degrade our children, and perhaps implant the seeds of cruelty. We do not correct even our animals by blows. Horses, for instance, are never struck. Whips, with a small thong at the ends, are used only to flourish and to make sounds which the horse knows, but they are not used to strike the animal. Other modes are employed for curing viciousness, each according to the nature of the vice. In the case of a kicking horse, he is placed in a machine which is closed on him, the machine being so constructed that when shut it effectually prevents the animal moving, and he is kept there in the same position for hours. If, when taken out, he again kicks he is placed back again immediately. The process is repeated when necessary over and over again, until the very sight of the machine will completely cow the animal, and he is effectually cured.

The laws are very severe against those who would ill-treat an animal, but there is now no need to put them in force.

We never punish by the imposition of tasks, our aim being to inculcate the love of study, and encourage the child to regard his work as a favour and a privilege. On the contrary we now punish the student rather by taking away the old than by imposing new school work; and this is so effected that the boy, though at first delighted, soon thirsts to resume his studies.

In many cases the pupil is not allowed even to know that he is punished, —*i.e.*, why the discipline is changed,—lest he should become attached to a fault for which he has suffered and, as it were, paid dearly; lest, too, the excitement of eluding detection should make it pleasurable to transgress when the immediate pressure is removed, and he should thus become schooled in untruthfulness and deceit.

The character-divers generally effect the child's correction by gentleness, and eventually bringing him to loathe the bad and love the good. Time, labour, and attention are bestowed unsparingly, and, however small the germ, the evil tendency is never left until, when this is possible, it is completely eradicated. In certain cases, where the footprint of nature is too firmly impressed, the efforts are continued until other and opposing qualities have been developed, and the moral patient has acquired such control over himself as to be able, in moments of temptation and impulse, to dominate the disturbing propensity.

Even after the fault seems to have been eradicated, the patient is for some time subjected to various tests and temptations before he is pronounced cured. We do not trust to superficial appearances.

Similar precautions were taken in the cure of adult offenders against the laws, but as soon as my plans had time to operate, offences by adults were of rare occurrence.

When a child gives evidence of remarkable genius, he is watched with more than jealous care, with a view to his superior refinement, and other qualities which we like to see in harmony. We do not like to see, as it were, a garment made partly of rich brocade and partly of common material.

The character-divers, too, are greatly assisted in their observations by an establishment attached to each school called "The Amusement Gallery," in which after a certain time the bent of the child, his versatility, capriciousness, constancy of purpose, and other qualities and defects are shown in his selection and continued or interrupted pursuit of any particular occupation or amusement.

It is scarcely possible to overrate the importance of acting with judgment towards children.

From the smallest beginnings, incurable defects of mind and permanent disease of body will gather strength, grow and obtain the mastery, till they carry off the sufferer, or implant vices that, like evil spirits, will

torture the victim during his life's career.

Nothing is spared in the education of the future man and mother of men. In the child is seen the parent of other generations, one who, as he is well or ill-directed, will strengthen or weaken the great work of human happiness, bearing with him a blessing or a curse for the community. Therefore whatever may be the pains or expenditure required in the cure of incipient faults, as of incipient disease, we know that society will be repaid more than a thousand-fold in the happiness of its members, in evil prevented and good propagated, in the numbers of men of talent and genius whose works, teeming with great results, will be thus saved to the State.

But for the character-divers the services of numbers of men of extraordinary genius would have been lost to the State, and our world's progress in science, inventions, and happiness retarded for centuries. Nay, perhaps the then comparative civilization would have been thrown back into barbarism, through the destructive play of bad passions and disappointed hopes.

Numbers who, if their early faults had grown into confirmed vices, would later have led a life of crime, and become inhabitants of dungeons and emissaries of evil, now grew into men of great eminence. The germ of evil propensities was destroyed, the exuberant motive power of their nature regulated and turned to good, by means which the character-divers thoroughly understood.

Amongst faults, the germs of which occupied the attention of the Djarke, are the following:

Untruthfulness, dishonesty, discontent, pride, vanity, boasting, cunning, envy, deceit, whether prejudice, self-deceit, or the wish to deceive others; nervousness or fear, inducing reticence and concealment of faults, excess of modesty or the occasional tendency of persons of genius to underrate their own powers, inattention to studies, want of application, power to learn too easily, lack of retentive memory, exaggeration and boldness, bad temper, sullenness, disposition to quarrel, cowardice, cruelty,

caprice as distinct from versatility, selfishness, greediness, laziness, and its various causes, and generally the germs of all faults and vicious propensities, which, if not cured at an early age, would grow into tenacious vices.

From the precautions taken in Montalluyah the schools have become real nurseries, where the pupil is endowed with knowledge adapted to his capacity and natural bent, strengthened and graced with valuable habits and stores of physical and intellectual power.

VII.

CHARACTER-DIVERS—*continued.*

> "Respect those who would enable us to obtain the respect of others."

In former times the education of our children, even of the most gifted, was entrusted to preceptors who occupied less than secondary positions.

We did not respect or love them much; nay, they were not unfrequently treated with indignity, and yet it was expected that our children would respect and love them and the learning they professed to teach.

All, whether men or women, entrusted with the education of the young are now honoured in Montalluyah, and are high in the State as persons charged to bring about great and valuable results.

The aid given me by the character-divers and preceptors in carrying out my plans was incalculable. Their sagacity selected disciples apt for the duties I required; men with vast powers impelled by good. These men propagated my doctrines, and vigilantly watched their observance, and a new vigorous generation soon sprang up, educated to obey my laws, and further to increase and multiply their beneficent effects.

These moral physicians were chosen at first from men of great sagacity, gentleness, and powers of observation, and of polished manners.[1]

[Footnote 1: In Montalluyah children are supposed to acquire so much by imitation, that the candidate for the office of Djarke and others must possess refined manners; and even the quality of speaking with elegance and accuracy is considered necessary both in them and in the Zicche. The art of speaking and writing with correctness is imperceptibly acquired from the language of the preceptors and other models with whom the boy comes in frequent contact. Grammar, with the exception of a few leading rules, is not needed, and the boy's brain is saved much dry and fruitless labour.]

Young men of special aptitude were soon educated to the office, and it was then that character-divers of marvellous powers sprang up, whose knowledge of the human mind, and skill in diving into the hidden currents of character, became so great that no incipient quality, or defect however minute, could escape their observation.

There is a man whom the sagacity of Vyora discovered, whose wondrous power in his art is the admiration of Montalluyah. The good he has done and the greatness of his work in searching out and developing hidden qualities and genius in children, who to the unskilled eye gave no promise, is celebrated in pictures, in sculpture, and in song, and his portrait is repeated in the highly finished and artistic mosaic pavement of our palaces and dwellings.

We delight to enrich our houses and public places with subjects which daily inspire great and pleasureable thoughts.

The subjects of the tesselated pavements include wise kings, inventors, and discoverers, character-divers and preceptors, physicians, great electricians and chemists; astronomers, men skilfully learned in the power of the sun; men versed in the knowledge of the human mind; eminent painters, sculptors, and architects; men skilled in the properties of birds, beasts, fish, and other living things. Moral qualities are greatly estimated; and we have many portraits of women famous for their virtues, gentleness, and superiority; even of servants distinguished for

remarkable cleanliness and other qualities. Every house has its tesselated pavement, more or less elaborate, but always beautifully executed, for all our artists are great, and occupy high positions.

Where a young man evinced qualities which, when tested, showed that he would make but a second-rate artist, the character-divers demonstrated that these youths possessed natural tendencies better fitting them for some other pursuit.

I have in my thoughts at this moment a favourite subject of the artistic pavement;—a man—Zolea by name—who as a boy was inattentive to his studies, while his talent for sketching from nature[1] was so remarkable, that even during school hours, with his eye seemingly on his book, he would occupy himself in sketching those around him. Every one, except the character-divers, thought that Nature intended this boy for a great artist. These demonstrated that as an artist he would never attain a high position; and after observing how he occupied himself in play-hours, and subjecting him to numerous tests, so completely cured him of his want of application and other defects, that he became the wisest and greatest among our kings. He aided me much in the devising and carrying out many things for the well-being of our planet.

> [Footnote 1: All students, even beginners, sketch from nature, no other sketching is allowed.]

Had I not been the son of a king I should probably have been educated as a harpist; for even as a child I showed great disposition for the harp, and composed both words and music for my favourite instrument; but my father's chief councillor, a man of great sagacity, saw in me the germ of intellectual powers far beyond those required for the most perfect execution of the harp, and, counselled by this sage, I was led to other studies by judicious treatment, to the doubting surprise of my early tutors.

* * * * *

I will now give you some account of one of the great works begun and ended in my reign.

This work, called 'The Wonder' of my Planet, was by our poets often spoken of as resembling my polity in the strength of its foundation, and in beauty, grandeur, and stability, as a work which, like my laws, they said had saved a world from destruction, and would endure for ever!

VIII.

THE STAR CITY.

"The City of delights. The beloved of the Angels."

The power of the sun in my world is great, and the heat and light are excessive. The great heat being, however, tempered by cooling, refreshing winds, and gushing waters, is to our constitutions generally agreeable, except at the period called the extreme season.

The colours in the sky are in great variety, and of exceeding transparency and brightness, some parts presenting masses of gorgeous reds, golden colours, rich greens, and pinks of many shades.

The skies present also the appearance of a most irregular and uneven surface—as though there were high hills, some with their peaks, some with their bases, towards the earth, and with large spaces between, so that whilst in one part these hill-peaks and bases appear only a few miles off, other parts of the sky seem very distant.

In vast mountainous and rocky regions is built our great city called Montalluyah, that is, "God's own City."

What are called the *External World Cities* are built on the base sides and summits of many peaked mountains, rocks, hills, and promontories, girded, intersected, and undermined by the sea.

The City is divided into 200 districts each known by a name indicative of the situation:—

The Upper Mountain City,
Summit City,
Topmost Point City,
The Lower City,
Down City,
Side City,
Lower Under City,
Sea City,
Vale City,
Ravine City,
Side Country,
The Internal City,

and similar designations.

Before my reign each of these districts formed a separate city. Great or rather petty jealousies existed between them, and much evil was the result; for they treated each other as rivals, and often as enemies. I decreed that all the districts should be called by one name, that the inhabitants of all should enjoy the same system of laws and government, the same customs and polity, and form as it were one family. I did many things to cement the union. I executed, too, numerous great works which assisted in promoting the growth of universal brotherhood. Many cities which formerly lay at immense distances from each other, separated by intervening mountains of immense height, I united by perforating the rocks, and building spacious galleries through the hearts and bases of the mountains, and by throwing "aerial" bridges from one mountain peak to another. Henceforth I shall speak of all these cities as "Montalluyah."

Palaces and edifices of various forms, their gilded spires and minarets inlaid with many coloured transparent stones which sparkle in our brilliant sun, stand on undulating sinuous ridges, peaks, and terraces, rising one above the other in endless and irregular succession.

The houses are mostly curved, oval, or round. In Montalluyah straight lines are avoided. The houses are built principally with a white stone, mingled with a peculiar stone of a bright sky-blue colour, both stones repellent of heat.

Gardens and verdure separate the houses one from the other. Most of the gardens are arranged in curvilinear lines, the houses being placed at the central point of the inner and outer curve alternately, so that each alternate house is on the outer centre of the garden curve, and each alternate house is on the inner centre of the adjoining curve. The undulating lines of terraces are broken by gigantic masses of rock of various colours, red, green, golden, white, blue, silver, brown, and variegated—rocks of carbuncle, lapis lazuli, malachite, gold-stone, and many-coloured marbles.

These rocks and undulations are intersected by ravines, rivers, inlets of the sea, lakes, and cataracts, reflecting the many tints of the gorgeously coloured sky and the rays of our vividly bright sun, filling our city as it were with aureoles of glory.

In many parts the sea has made itself a hidden way, and runs its course for miles under the rocks, appearing again at great distances in one of the interior inland cities, perhaps at the bottom of a deep ravine or open space; and the waters are often raised and collected for use and ornament in fountains and artificial cascades called water-lifts: whilst springs of fresh water gush out of the rocks, affording refreshment to the sun-parched and many-coloured grasses, flowers, and vegetation.

Great cataracts and artificial cascades often form the background to a great building or colossal statue. The effect of these large masses of water viewed from all parts is extremely grand and beautiful.

Sometimes the ravines, rivers, cataracts, and sea-arms are passed by huge bridges of the natural rocks, perforated by the sea, or opened by man to render navigation possible. Sometimes bridges miles in length

are thrown across a great cataract or immense chasm where the rocks have been relentlessly torn asunder by the lightning and other electrical disturbances.

All the large bridges are covered with houses and gardens, which at a distance seem air-suspended cities, hanging without support over rivers, cataracts, large cities, and aggregations of houses.

Everything conducive to health is attended to: the supply of water to every part of the city is unlimited, and in each house, whether of rich or poor, is a bath, for sea and for fresh water.

We have "violet streams," which run for miles over beds of violets white and blue. The water of these is preserved in tanks erected at the end of the streams, trenches being cut to assist the flow. It has a delicious flavour, and is used for various beverages, but not for culinary purposes, since, when mixed with certain things, it turns black and loses its fragrance.

Trees, plants, and flowers perfume the air with their fragrance; whilst birds of endless variety and richest plumage have their nests in the tall and wide-spreading trees of varied-coloured foliage and fill the air with their music. In the trees are placed artificial nests to entice the birds; these invite others, which build their nests spontaneously. The trees are large, their branches and rich foliage spread themselves in graceful lines to a long distance on every side and afford pleasing shade, their gauzy leaves subduing the light and producing the effect of soft rainbow tints. The trees also emit perfume.

The music of the birds harmonizes with the refreshing sounds of the running waters, cascades, and fountains; and that the effect on the mind of these beautiful harmonies may not be disturbed, the wheels of our chariots as well as the horses' hoofs are bound with a peculiar hide which, besides possessing great toughness and durability, has the property of deadening sound. Thus none but the most agreeable sounds reach the ear, whilst the senses are charmed with aromatic odours and the eye is pleased with beauty of every kind.

Arched galleries and passages through the hills and mountains, partly perforated by the sea or electric fire, and enlarged by the industry of man, have a subdued light and make an impression of another kind, the red light in these perforated roads answering to the red shade of the outer world. These galleries and openings in the rocks are used to shorten distances from one side of a mountain to another.

The whole city is full of animation. The illuminated sky, the variegated plumage of the birds, the moving myriads of human beings, clad in rich costumes of divers colours; horses, elephants, camels, and camelopards, richly caparisoned; carriages gorgeously decorated, the golden domes of the houses, the many-coloured rocks reflecting themselves in the waters and in the brilliant skies, with their own aerial peaks and mountains brilliant and bright with our powerful sunlight—all these combine to produce a gorgeous spectacle. Moreover, the constantly recurring undulations and tortuousness of the ground are so great that it is difficult to proceed for a few minutes without meeting an entire change of scenery, as though one had reached a new city.

At one moment are seen mountain peaks rising almost perpendicularly to the skies in varying height, then a little turn brings the spectator on forests of houses, with ornamental gilded domes and hives of human beings.

Overhanging rock and mountain-forms of varied colours, the skies now scarcely seen, now reflecting their gorgeous tints in the sparkling rivers, cascades, and upheaving masses of water, these and much more form a picture of which words of fire would fail to convey a sufficient idea to those accustomed to the sober, though beautifully subdued tints of your skies.

IX.

THE SUSPENDED MOUNTAIN.

> "The uplifted Mountain Arm, as though raised in anger, threatens you and your little ones with destruction.....Let all hearts unite in prayer, that Heaven may inspire your Tootmanyoso with the means of saving the world from so dire a calamity!.."

The ordinary elevation of the tides is immense. They advance and rise to a height far beyond any similar phenomenon in your planet, and the waters retire in proportion, leaving at low water many miles of seashore uncovered.

In Montalluyah the sun's electricity is very powerful. It is the power of the sun, and not of the moon, which principally influences the tides.

A huge mountain mass projects from the elevated continent of Montalluyah for miles above the sea.

The heart and base of the mountain mass had been carried away from under the higher mass by some great convulsion of nature, leaving the upper part of the mountain without support, except by its adhesion to the main continent, of which it formed part. From the point of juncture the suspended mass extends itself out horizontally in the air over cities built on the ridges, sides, and foot of the parent mountain-chain, and far beyond the extreme bounds of these cities, for miles over and parallel

with the sea, at a height which from the lower cities makes the superincumbent mass rarely distinguishable from the illuminated clouds above.

The electric agencies in our world are very powerful; and it is supposed that at an early age of our world's history the mountain-foot covered with cities extended considerably beyond the land on which stand the present lower cities, and for many miles beyond the actual point to which the sea now recedes at low water, and that through a great electric disturbance, the upheaving seas of mighty waters rolled on, and, rising to an immense height—some think above the summit of the great mountain—with resistless force carried away miles of intermediate rock-land, which had till then formed the heart of the mountain.

When after some time the waters receded the mountain mass above the point of their ravages was left suspended, deprived of the support of the intermediate and nether strata, which before the upheavings of the waters had connected the plateaus and peaks of the mountain with the land beneath.

The suspended or aerial mountain stretches from the high lands of the continent horizontally through the air, just as one of your largest continents stretches into the sea. Between it and the sea below, however, is a space to be measured by miles.

The sea in subsiding did not recede to its old limits; for a part only of the miles of the lower lands between the scooped-out mountain heart and the sea was restored to the world by the retiring waters, and the heart of the mountain having been carried away and engulfed for ever, the projecting mountain mass was left suspended not only over the land now covered by the lower cities, but for miles over the sea. Neither can be approached except by proceeding first for a long distance in an opposite direction inland, until the extreme point is reached where the sea stopped its ravages on the mountain's heart; the road then leads by circuitous bendings to the land below.

On the rocky ridges of the heart or indent of the mountain, and on the part of the mountain foot restored by the sea, now stand the middle and lower cities of Montalluyah.

The hanging mountain mass, with its promontories and high hills, presents all varieties of shape and outline, and is itself intersected by rocks, ravines, cataracts, and torrents.

One great torrent runs on for many miles, and having been swelled by tributaries into an immense gathering of mighty waters, rushes impetuously seaward, to the extreme point of the suspended mountain, whence from its aerial height it falls into the sea beneath, the spray bringing refreshment to the parched atmosphere of the lower and intervening cities, built on the ridges and peaks of the sea-worn heart of the mountain. This torrent, called the Great Cataract, forms a feature of great grandeur and beauty.

On the suspended mountain itself is built a city larger than your largest capitals, called the Upper city of Montalluyah. The Lower city, nearer the sea-level, is distant vertically about three miles from the nearest under part of the projecting mountain-arm above. The cities swarm with human beings, whilst the wealth of the districts is incalculable.

Before my time many of the under parts of the suspended mountain had broken from the parent mountain arm, burying cities and their inhabitants under the masses of rock.

In the then state of science these catastrophes could scarcely have been prevented, but at that time the inhabitants of Montalluyah rarely thought of preventing accidents till after they had occurred!

Although in my reign the suspended mountain did not threaten immediate danger, I saw that unless means could be devised to support it, like catastrophes would at some time recur, and perhaps the whole mountain arm would give way, hurling the upper cities to destruction,

and crushing the nether cities under its falling masses. The terrible consequences that would ensue were more appalling even in their remoteness than the most vivid imagination dared realize.

Acting therefore on the principle governing my polity—that of preventing evils—I determined to use the immense mechanical and electrical powers with which the marvellous progress of science had supplied me, to construct a work strong and durable enough to support the suspended mountain.

I assembled from all parts the mighty men of our world, men of truth and wisdom, fathers of science and knowledge, chiefs in all the principal departments; for it was provided by one of my laws that before any great work was undertaken these men should be consulted, and that, so far as was in accordance with the chief intent, the work should be carried on in harmony with the requisitions of the principal sciences.

After much thought, deliberation, and study, a stupendous work was undertaken; a work so great in the parent thought, and so wondrous in the execution, that it is looked upon by the people as the wonder of our world.

With your limited mechanical appliances, and backwardness of electrical science, you will perhaps have difficulty in realizing the practicability of such a construction.

X.

THE MOUNTAIN SUPPORTER.

> "Let all hearts unite in gratitude to Him who sent His angels to aid us in this work.
>
> "He inspired the directing mind, and gave strength to those that executed. He created the fire that married the two substances into one indestructible compound mass.

"Behold, and wonder!"

A circular tower, whose base above the foundation is more than a mile in diameter, and whose round walls are more than a hundred feet in thickness, is carried up from the lower land nearest to the sea-level until the head of the tower reaches and supports the projecting mountain mass above.

The diameter of the tower-head is one-third of the diameter of the base. The diminution being very gradual is scarcely perceptible, and appears to be the effect of distance. The height of the tower is the same as its circumference at the base. Our ordinary powers of vision generally exceed yours, and the light in our world is more intense; and yet the head of the tower can from the lower cities seldom be distinguished from the illuminated clouds above.

The area in the interior of the tower at the base, and for some distance above, is divided horizontally and vertically, and the compartments are used for storehouses, including the storing of scientific instruments, and for experiments connected with science. The different strata and incidents of the atmosphere at various elevations are there studied with peculiar advantage, as there are numerous landings at different distances, and we have the means of ascending and descending the whole distance, or of alighting on any of the landings by means of a machine raised and lowered by electric power.

As the work progressed, stages were constructed at different heights on which buildings were erected, where the workmen and their families lived until the task was completed, the materials and electricities used, as well as provisions and necessaries, being raised to these stages by electric power. The principal material used is the hardest and most durable substance known in our world—an amalgamated material consisting of certain proportions of iron and marble fused into a solid compact mass by the action of fire and electricity.

HEAVY MATERIALS LIGHTENED BY ELECTRICITY.

The blocks used were of immense size, so huge, that even with our electrical and mechanical levers, many expedients were employed to raise them to their assigned places.

Electric science had greatly advanced in my reign, and electric powers had been discovered by which the heaviest masses could be lightened temporarily, so that their specific gravity, called by us the "tenacious electricity," and its tendency to seek the sympathetic electricity of the earth was temporarily diminished, if not entirely neutralized, without injury to the mass subjected to the operation.

Though the means and end are different, the principle is not unlike that by which you often lighten the specific gravity of bodies, and even change their nature by chemical combination, the action of fire, and other expedients, the bodies often resuming their specific gravity and

original form. The means we employ for lightening bodies are far more rapid and effectual, and, at the same time, the materials acted upon are less abruptly or violently changed.

Notwithstanding all our knowledge of electric and mechanical powers, our thousands of artificers employed, and all the industry and energy exerted in obedience to my will, nine of our years[1]—more than thirty of yours—were spent in the completion of this stupendous work.

> [Footnote 1: Our year is not calculated like yours. The year is marked by a peculiar appearance which the sun assumes at equidistant epochs.]

The tower of itself is an object of great grandeur and beauty, and is richly ornamented. The external walls of the plinth at the base of the tower are overlaid with gold and ravine[1] metal, inlaid with large transparent stones of varied colours. The ravine metal—a metal prized beyond gold—possesses beautiful veins of colour, which change with the temperature—veins of watery green, of purple, blue, and steel. When refined, it is most beautiful. The colours are sometimes so bright that it is dazzling to look at them.

> [Footnote 1: So named from being found in the great ravine, the largest ravine in Montalluyah.]

On the tower are scrolls and images of peculiar meaning, and of large characters in gold and ravine metal, ornamented with transparent stones. The sun's rays playing on these stones, and particularly on a large yellow stone like an amethyst, illuminates the column with what may be called a supernatural light.

Alternating with the scrolls are designs representing episodes in my life and reign. These designs are in pure white marble in relief, and with the light of our world stand out prominently from the iron-marble, sufficiently large to be plainly seen at great distances from nearly all parts of the city. The proposal for thus recording the events of my reign came from the kings and people who loved me greatly.

As before observed, a person can be raised from the base to the top of the column, and through a shaft into the Upper city. The movement is rapid, and takes less than half an hour either way, whilst the journey by our external roads, by reason of the circuits to be taken, and the ascents and descents would, even to descend, occupy two days on a fleet horse. The passage through the Tower, however, is seldom used either for ascent or descent, except in cases of great emergency, because the great difference of the atmosphere above and below materially affects the health of the passenger.

The machinery, too, in the descent requires much care and calculation, for the weight of the descending body would otherwise increase to such an extent, that accidents would occur.

The difference of the atmosphere and the effect on the human frame between the Upper and Lower cities is remarkable; those accustomed to live in the Lower city have a disposition to spring from their feet when first arriving in the Upper city. I recollect a lady—rather weakly—who seemed mad, but was rational enough; only she could not for some time resist the impulse of springing upwards.

This mode of communication would perhaps have been more resorted to had we not possessed the telegraph. The electric telegraph is, in its rapidity, not unlike that used in your world, but is different in construction and mode of working. What is written at one station is reproduced in its exact size and form at another. Even a portrait designed at one end of the telegraph with the electric acid would be instantaneously reproduced at the other end, perhaps many hundred miles distant.

At different stages of the Tower the colour of the atmosphere sensibly changes. This phenomenon is caused by certain minute particles which contain animalcula, or their ova, and exist at different distances in layers, and which as they are developed and become heavier have a tendency to fall into lower regions of the atmosphere, till they awaken

into life under the influence of the sun. Blights, called by us Viscotae, "infectious visitors," are often thus generated, falling from layer to layer till they settle on plants and trees.

These ova, moved by the winds, are sometimes mixed together, but when the winds subside the more advanced and heaviest tend to settle in the lower regions of the air just as the heaviest particles of a mixture have a tendency to sink and settle below.

All this has been shown beyond doubt by a quantity of air being collected when falling fast, and at different times and altitudes. Each portion of air being secured in a separate glass case, the ova were then viewed through our powerful microscopes, and subjected to various tests.

The Mountain Supporter, which can be seen from nearly every part of the Middle and Lower cities of Montalluyah, is an object of inconceivable grandeur and beauty, its appearance varying according to the point whence it is seen.

This great work often seems broken into numerous parts of varied length, by mountains, rocks, and ravine sides, raising their heads between it and the spectator. Often, particularly when the clouds have been high, and the sky has been clear, I have seen from a distance parts of the huge Mountain Supporter seemingly broken into vertical lines towards the middle and lower parts in a way that, in conjunction with the upper parts, has produced an effect like that of an immense flower raising its head towards the skies, supported by a long stalk resting on many elegant but slender tendrils.

The grandeur and beauty of the tower is, if possible, heightened by the Great Cataract, in conjunction with which it is almost invariably seen. The falling waters vie with the Mountain Supporter in breadth, and overtop it by the height from which they are hurled; the one firm, stately, and magnificent in its solidity and repose, the other vapoury and grand in its gracefulness and movement; both inconceivably beautiful; the Cataract, a work of all-powerful Providence, whose wise purposes no one can scan in their entirety; the Supporter symbolizing the inspired genius

of man, who, with the beneficent purpose of saving innumerable lives from destruction, had, by the sweat of his brow, constructed a work more stable than the solid rock,—work whose head might be said to "reach unto Heaven."

XI.

ELECTRICITY

IN MONTALLUYAH.

"A spark of Heaven power."

In the construction of the Mountain Supporter you will have perceived that we were greatly aided by our extended knowledge of electricity.

Before my reign, although electricity was used for some purposes, the existence of varieties in electricity, and the manifold uses to which their wondrous powers could be applied, were unknown.

Electricity was not then utilised for locomotion either on land or sea, or for raising ponderous bodies to an immense height, or in the various products of manufacture and art, or, in short, for any of the almost innumerable purposes where the various electricities are now employed, either separately or in combination.

This could not well be otherwise; for beyond a contrivance like your Leyden jar, for collecting "air electricity," no means of collecting, still less concentrating, electricity of any kind then existed.

The belief once generally entertained was, that there were but two electricities, or rather two varieties of the same electricity, one repellent and the other attractive, answering in a measure to your terms of positive and negative. Some, indeed, thought that several different kinds

existed; but the renowned electricians—truly great men, for they had opened the gates of science—proclaimed that all electricities were in reality one and the same, modified only by accidents.

They referred to certain phenomena always resembling each other in whatever way the electricity producing them might be generated; and they argued, with an appearance of truth, that the electricity which produced these similar phenomena must be one and the same: for, asked they, are not like causes indicated by like effects? The principle was right, but, as was subsequently shown, the application and the conclusion were wrong. The error had arisen from the fact that electricities of every kind possess certain properties in common: thus, air electricity enters into the composition of them all. These common properties produce phenomena varying only in degree, but so similar to each other that, in the absence of further knowledge, the electricians concluded that their theory was correct, and, in consequence, many valuable discoveries were retarded for centuries.

MANY KINDS OF ELECTRICITY.

In my reign, however, tangible and visible proofs established beyond doubt that every kind of body and substance, whether animate or inanimate, contains an electricity of its own.

Although all electricities contain air electricity, and are similar in some other respects, yet each differs from all others by reason of some properties peculiar to itself, the species being different, though the genus is the same. As in the case of the blood of animals, which is called by the common name of blood in spite of material differences, when the species is different, so we have a generic name for all electricities, a term signifying "A spark of Heaven power."

Some electricities are diffused and attenuated; some are concentrated; others are so tenacious of the body to which they belong that they are all but steadfast. Some are sympathetic; some antipathetic, attracting or

repelling each other; some mingle gently; others, when brought into contact, cause violent explosions.

DRAWING OUT AND CONCENTRATING ELECTRICITIES FOR USE.

WE discovered the means of drawing out the various electricities from the body to which they are appetent, and of concentrating and preserving them for use.

Man, beasts, birds, insects, fish, reptiles, trees, plants, water, in short, all substances organic and inorganic, possess each its own peculiar electricity. In naming fish, I refer to each species, and not merely to those already known to you as electrical, and which have the power of emitting strong currents of their own peculiar electricity. A huge fish, well known on your earth, supplies us with the most powerful of all electricities—an electricity of immense value. Docks sufficiently large are built expressly where the sea monster is driven, there to be subjected to the process by which he is made to yield up the electricity contained in his huge frame.

The different kinds of electricity collected and concentrated are stored ready for use in a large building called "The Electric Store-house,"— the electricities, secured in non-conducting pouches, being placed in separate compartments. This is the more necessary, since explosions arise when antagonistic electricities come into contact with each other, and the commingling of sympathetic electricities deteriorates their quality. For that reason care is taken to keep out light. By the electricity of light most other electricities are affected.

To the storehouse are attached extensive grounds for experiments and for exhibitions, which at the same time delight and instruct the people. I should observe that beautiful as well as humorous effects are produced by certain electrical combinations. By means of sympathetic action living

bodies can be attracted and raised without removing their inherent electricity, as you attract light substances with the magnet or the electricity known to you.

WILD BIRDS CAUGHT BY ELECTRICITY.

The kind of electricity by which the body to be operated upon will be best attracted is well understood in Montalluyah. As a simple example, I will state that wild birds are caught by means of a sympathetic electricity. For this purpose a long, hollow metal tube is used, at the bottom of which is a globe containing a powerful acid. A receptacle at the top of the tube contains seeds much liked by the birds. They hover about these seeds, and, when they are within a certain distance, a slight pressure on a wooden spring causes a drop of the acid in the globe to escape into the tube, and so to set in movement a current of electricity, which, being very sympathetic to the bird, acts as an attractor so powerful, that it cannot get away. The tube is then gently lowered, and the birds are gradually drawn near to the earth, when a light net is thrown over the captives, and they are shaken into a cage-net at the bottom. Calmed by the electricity, they do not flutter or struggle when thus secured. It is very interesting to see the birds come nearer and nearer as the rod is lowered towards the ground.

For electrical purposes it is necessary to catch the birds alive. Those required for food are also caught in the same way, that they may be killed without pain, as, indeed, are all birds and animals used for food. Birds supply an electricity for lightening ponderous bodies; and by means of this, the immense blocks of iron-marble used for the construction of the Mountain Supporter were temporarily lightened, that they might be raised to their assigned places.

XII.

THE PAIN-LULLER.

VIVISECTION.

"Cause not pain, lest you yourselves be afflicted."

From a small pet-bird of pink and green plumage, called in our language the Nebo, is extracted an electricity known as the "Pain-luller."

The preparations previously used, though very serviceable, did not fulfil all requisites, and they so seriously suspended the vital action, that the patient often died in consequence. By means of the "pain-luller" vivisection and the most difficult surgical operations can be performed safely and painlessly, without any part of the system being affected by the action of the "pain-luller," with the exception of the nerves of sensation. We knew that the feeling of pain in animals depends on the action of a particular set of nerves. When this pain-lulling electricity is introduced into body, it is attracted to the nerves of sensation, and the sense of feeling remains suspended during several hours, whilst the other nerves and muscles—as, indeed, all the rest of the organization—continue to perform their functions as in their normal state.

VIVISECTION.

In vivisection the animal's eyes are bandaged, so that he does not even know what is going on, but is free from pain, whilst all the springs of action, with the one exception, remain in their normal state. This would not be the case if the animal suffered from acute pain and terror during the operation. The continued energy of the functions is thought essential to the complete success of the operation, whether on the human frame or in vivisection.

HOW DISCOVERED.

The efficacy of the "pain-luller" was discovered by an accident. A little girl carrying a pet Nebo was knocked down, and the wheel of a chariot passed over her legs. In a convulsive effort to save her pet, the child pressed it to her bosom with so much force that she broke, the bird's skin. When the people ran to her assistance, and lifted her up, they found that both her legs were broken. To the surprise of all, she did not cry, but only asked to be taken to her mother, and continued to press the bird to her breast. From kindness, those near wished to take away the bird, but the girl would not loose her hold.

The doctors were astonished; for the severity of the fractures would ordinarily have caused acute pain, more particularly during the setting of the bones. The child, however, though quite conscious of what was passing, did not suffer in the least, but continued to pet her little bird.

After many experiments, my scientific men found that this entire absence of pain was due to the Nebo's electricity, which had escaped by the breaking of its skin. This electricity, attracted by the nerves of sensation, had entered the child's body when she pressed the pet convulsively to her bosom, the seat of great sensibility. The electricity only suspended the sense of feeling, but did not affect any other part of the child's system.

XIII.

THE MICROSCOPE.

CONCENTRATED LIGHT—MUSIC—EXPERIMENT ON THE LIVING MAN.

> "The same Almighty Power that governs the universe of worlds governs the minutest particles of creation....In both is shown His infinite power."

The properties of our Microscopes (as of other optical instruments) are wondrously increased by the aid of an electricity called "concentrated light." [1]

> [Footnote 1: In Montalluyah light in the ordinary state is said to be a highly attenuated electricity.]

In our fields is found a little worm, whose body is surrounded by a beautiful and powerful light, visible by day and by night.

While meditating on the cause of this phenomenon, it occurred to me that the light was probably attracted and concentrated round the little creature by its own electricity. After many experiments, my great electricians found that this was the case, and many valuable discoveries were the result.

A machine, called the "Enticer," charged with electricity abstracted from this worm, is placed in a high open spot, and light is attracted and concentrated in a marvellous manner. When the pouch for receiving the concentrated light is fully charged, and secured against the action of other electricities, it is detached from the machine, and its contents are preserved for use. The appearance of concentrated light is that of a beautiful halo.

MUSIC.

The power of music, beyond that derived from its mere execution, is greatly influenced by the amount of electricity infused into the sounds by the performer; and in our planet the human voice has often been known to soothe, and sometimes to restore, a disordered brain, by awakening the powers of some dormant division, when the electricity accompanying the sounds is sympathetic with the light in the brain of the listener. The human voice, other things being equal, is more electrical than sounds from musical instruments; for in the one case the emanations of light come direct from the living singer, whilst in the latter instance the electricity coming from the executant passes by contact with the instrument, and is thus transmitted through an intermediate conductor. The beauty and effect of many of our musical instruments, and particularly of the harp, are greatly increased by the application of electricity.

A skilful executant on our harp can assuage the passions of a multitude, —nay, he can excite many of the aspirations and sensibilities ascribed in your legends to Orpheus and other mythical personages.

It is thought in Montalluyah,—though it was never demonstrated,—that a modification of concentrated light forms the point of union between the immortal soul and the perishable portions of man.

INTERNAL CONCENTRATED LIGHT.

There is concentrated light—the very essence of light—within ourselves, particularly in the brain, to which the light, having travelled about the body, is conveyed, through the instrumentality of the blood, to the nerves and other organs.

In speaking of the brain, we often use words belonging to vision. Until the discovery of "concentrated light," we did not know how truthful were these expressions, one of which in our language answers to the "mind's eye." The eye as well as the brain contains concentrated light, and physical impressions received through the visual organs are by this electricity immediately conveyed to the sympathetic "light" of the brain.

By the application of concentrated light we can even increase for a time the intellectual powers, or, rather, we can strengthen the instrument through which the intellectual powers are manifested.

EXPERIMENT ON THE LIVING MAN.

The possession of concentrated light led to the discovery of the exact mode in which the brain acts in the living man. By experiments on transparent fish of the zoophyte class, and on the eyes of animals, we discovered the means of making a living body for a time transparent. The skull was rendered transparent accordingly, and by the aid of concentrated light and of an instrument called an "electric viewer," the currents of electricity in the brain were made visible.

These currents include myriads of electrical lines—literally composed of electricity—lines the nearest approach to your definition of a mathematical line, that which hath length without breadth.

The filaments, as we may truly call them, are of different forms, straight, spiral, and otherwise curved, and of varied length and colours. They are set in motion by the impulsion of thought. When we talked to the patient on a particular subject, one series of lines would be set in motion with

indescribable rapidity; other topics would call into play other series of straight or curved lines. They can also be set in motion under the influence of certain electricities.

Although the experiments on the living man proved very valuable, they could not be conducted with impunity, and were therefore not often repeated. The man operated upon was insensible for some time afterwards, and felt the effects for years. He was, however, cared for during the rest of his life, and was not expected to work. Moreover, every kind of comfort, luxury, and amusement was provided for him and for a certain number of relatives and friends whom he selected as companions. Still he was not allowed to marry, that being one of the principal conditions to which he subscribed on being chosen for the experiment from amongst a host of candidates to whom all the serious consequences attending the operation were made known.

XIV.

PHYSICIANS.

DISEASE GERMS.

> "Cure all evils in their early germ, so shall ye be spared endless suffering."

Physicians take very high rank in Montalluyah; they are furnished with palaces and gardens; their revenue is great; they are wholly provided for by the State, since on their knowledge and efforts depend greatly the prolongation of life, the prevention of disease and suffering, the preservation of beauty, and of invaluable nerve and brain power. As in the moral, so in the physical constitution, the aim is to discover and crush evils in their germ, before they have taken proportions dangerous to the individual and to the community.

Formerly the chief duty of physicians was to wait patiently until disease had worked great and even fatal mischief. Their chief occupation now is to preserve the patient's health and prevent disease, and if, from any but accidental causes, any one fell ill, it would be a disgrace to them. They were formerly called by a name answering to "Disease Doctors," whilst they are now known by a term signifying "Health Guardians."

Prior to seasons formerly unhealthy, the physicians make visitations from house to house. With the aid of powerful microscopes, they examine the minute particles of the perspiration issuing through the

pores. The perspiration, being the result of efforts made by the system to throw off impurities, indicates whether the patient is in good health, or whether there is a tendency to disease. The state of the perspiration, though varying greatly, does not always show the exact nature of the malady; for many diseases present the same appearances, and, in that case, tests are applied, which do not fail to indicate to what malady the impurities belong.

To give an instance: There is a disease of the lungs called Scrofiuska, which impedes respiration, and is besides often attended with cough, emaciation of the body, and other symptoms like those that accompany consumption, for which indeed it was formerly mistaken. It is now well known to be a different disease, requiring different treatment. In scrofiuska the lungs swell inwardly, but tubercles are not generated, and, unlike consumption, this disease can be cured even when at its height. I recollect a bad case, early in my reign, where our physicians, mistaking the complaint for confirmed consumption, declared that the right lung was gone. A short time afterwards the real nature of the disease was discovered, and the patient was completely restored to health.

In both complaints, however, the perspiration, when viewed through our microscopes, presents exactly the same appearance. In consumption, and to a greater extent in scrofiuska, the lungs are covered with a web-like moisture, portions of which are thrown off by the system with the perspiration.

The ordinary appearance of perspiration in a healthy state is that of an oleaginous liquid consistency resembling, say, a thin cream; but the water exuded by the lungs has the appearance of dew, and is indeed called by a term signifying "lung-dew." It does not amalgamate with the oleaginous part of the perspiration.

Our doctors at first thought that they could detect incipient consumption from the appearance of this dew, whilst they had only ascertained that the germs of some one of several diseases existed in the system. For although the presence of lung-dew in any quantity gives intimation that

all is not right, the specific malady is not indicated with certainty. The application of certain tests to the patient is necessary to discover the particular disease with the incipient germs of which he is afflicted.

Disease and contagion difficult to deal with in their advanced stages, when they have already made their presence known by symptoms too palpable to be disregarded, are easily mastered in their germ.

To collect the perspiration, a little instrument, called "the scraper," is passed over the skin, and at each turn deposits the perspiration in an air-tight receptacle attached to the instrument.

The blood was found to be but a partial test of disease, for there is much in the body which does not mingle with the blood, whilst the perspiration contains impurities thrown off by every part of the organization, and, when examined through our microscopes, never fails to give warning.

At the same time the blood is the subject of deep study in Montalluyah; and every point connected with its component parts, colour, circulation, heat, quality, purification, is thoroughly understood.

The physicians sometimes examine the breath. With this view, the patient breathes on a little instrument saturated with a preparation which condenses and retains the breath. Ample opportunity is thus afforded for its microscopic examination, and for the discovery of the unhealthy particles with which the breath may be impregnated.

XV.

MADNESS.

> "Think not others blind because ye will not see....The concentrated light of the soul is not visible to the naked eye."

The microscope also led to the discovery of the incipient causes of madness, by the facility it afforded us for the dissection and examination of the minutest portions of the numerous divisions of the brain.

Before my laws came into operation the incipient symptoms of monomania were rarely noticed, and many were driven into confirmed madness and crime by neglect or improper treatment, whilst some of the supposed lunatics were really wiser than their keepers or the doctors who attended them. It often happened that the aspirations of a superior mind were mistaken for indications of the malady, and led to the incarceration of the supposed lunatic. For instance, a poor man, who lived in the reign of my predecessor, thought, and truly thought, that electricity might be used as a motive power for the heaviest bodies, and supply the place of wood used as fuel in manufactures. He also thought that electricity, then impalpable to the senses, was the material ingredient affecting the weight and coherence of bodies. People laughed at what they supposed to be illusions, and there the matter might have stopped; but the poor man persisted in his assertions that the sun contained electricity, which could be attracted, concentrated, and applied to various purposes. He appealed to the well-known fact, that the sun ripens the fruits of the earth, changes the colours of substances,

affects the brain, and produces many wondrous phenomena without visible contact. His lucubrations, instead of suggesting experiment, were received with derision, and the man himself was cruelly treated, his very persistency in the truth convincing the world that he was a confirmed madman. In vain he appealed to the officers charged to visit the monomaniacs, and, in spite of all his efforts, he died in a lunatic asylum.

So dangerous, indeed, was it formerly to announce new ideas opposed to those already received, that we had a proverb to the effect, that he was not mad who had "droll" thoughts, but he was so who told them to the world. The proverb is now somewhat reversed, and he is thought wicked who, being favoured with gleams of light, allows them to perish with him.

Accompanying all laws, I gave to the people my reasons at length for their promulgation, together with answers to anticipated objections; and in the exposition of the laws relating to madness I bid them recollect that had I endeavoured to put my thoughts into action some years earlier, I should undoubtedly have suffered similar persecution to those under which many others had succumbed.

Monomania is not now assumed, as formerly, from the seeming extravagance or supposed absurdity of people's words; for it is well known in Montalluyah that thoughts which a few years before were scoffed at as the height of absurdity are now acknowledged facts, and they who could doubt the existence of the now familiar phenomena would alone be thought mad! It is known, too, that people often say strange things from confused or indistinct recollections of what has befallen them in a prior state of existence, or from prenotion or intuition of things as yet unknown to others; and although in the sciences we accept nothing as conclusive that is not confirmed by experiment, the vastness or strangeness of the thought, far from attracting ridicule, generally leads to inquiry, experiments, and results. Many of our great discoveries have been suggested by hints which formerly would have seemed the ravings of a disordered mind.

With our microscopes we have been enabled to examine and dissect all the minutest divisions of the brain, each of which responds to certain trains of thought, and to ascertain the physical cause of madness.

This knowledge enables us to discriminate with certainty, to detect the existence, nature, and locality of the germ, and apply effectual remedies during the earliest tendency to the malady. Until this discovery was made, I took effectual means for curing the numbers in whose brains madness had already been developed. I erected many great buildings, where each patient was separated from the others, for in Montalluyah madness is thought to be more or less contagious; but after I had reigned some years the deserted divisions only served to show for what purpose they had been formerly used, and, with one single exception, kept in case of need, these buildings are now appropriated to other purposes.

Amongst the discoveries that astonished the brain-doctors and mind-tamers was the following:—It was formerly thought that the disease existed in the *overworked*, portion of the brain; but this was found to be an error, inasmuch as the disease exists in those parts of the brain which have lain dormant or have been little used. From these the oleaginous fluids essential to their life and activity are drawn to supply the overworked portion, which remains in full health and power. The doctors admitted that their original belief would alone suffice to account for their having failed to cure so many cases of madness.

The heat of the climate, the power of the sun, the then excessive use of stimulants, and the excitability of the people,—whose pulsation is more rapid than yours,—all tended formerly to augment the victims of the scourge.

XVI.

THE DEATH SOLACE.

INSECTS.

> "Seek diligently and you will find healthful good even in noxious things."

In Montalluyah learned men are employed wholly in the study of the properties of insects, for these contain valuable electricities.

Colonies of insects, brought by the storms, formerly destroyed whole crops, till a simple mode was discovered for protecting our fields and capturing the marauders.

It was ascertained what plant the insects liked most. This, fortunately, proved to be a common plant—one that could be produced in great abundance. Large beds of it are grown in a place concealed as much as possible from view. Amongst the coveted flowers is sprinkled a strong scent, which attracts the insects, who, finding the plant they like so much, congregate there, abandoning entirely the other plants.

We have gauze of a very fine and yet strong texture, with which nets are formed. One half of the net is laid over the plant-bed when certain winds foretell the coming of the insects, and as soon as these have covered the favourite plant, the top of the net, moved by a spring from either side,

closes over and secures the swarm. Where not necessary to secure the insects alive, we sprinkle over the attractive plant-beds a strong poison, which is itself extracted from insects.

There are at times certain impurities in places very difficult of access. Swarms of insects, secured in immense cages, are brought as near as can be to the spot. The cages opened, the insects instantly rush out in swarms, and soon consume everything that has produced the noxious exhalations. All insects,—indeed all created things,—have, in Montalluyah, some properties useful to man.

THE DEATH SOLACE.

After some years had passed, and my laws had time to operate, disease and crime were reduced to the smallest proportions. Life is now prolonged to a period which, before my reign, would have been thought fabulous, and people rarely die but of old age.

Man's progress having become a pleasant journey, I was encouraged to believe that the traveller might be enabled to quit the world without the ordinary death-struggle and convulsion, and with his expiring faculties so refreshed, that he would give his last directions with a clear brain and a cheerful heart.

From a little insect, my men of science extracted a material from which is prepared a potion agreeable to the taste. This is administered to the patient as soon as the physicians are satisfied that life is ebbing fast; and it, at the same time, calms and rouses the dying man.

Within five minutes after it has been taken, all signs of suffering disappear, and the countenance acquires a calm expression, succeeded by a smile of joy rarely seen in the most perfect health. The faculties of the dying man are brightened, and his sensations rendered delightful. He looks calmly on death, makes his dispositions with the serenity of robust health, converses familiarly with those dear to him, gives them his blessing, and passes away as though he were leaving only for a short and

pleasant journey. I have seen many exhort their children and relatives, and speak of their departure for another world with an eloquence seldom heard on other occasions.

The effect of the potion on a person in full health is very different; it stimulates and excites, and is altogether prejudicial; and although it would rather do good than harm to a weakly person, its great virtues are only shown when taken by a man in his last moments. Where it is desirable merely to calm or to rouse, there are other and more effectual preparations.

XVII.

INTERNAL CITIES.

SUNSHINE PICTURES.

> "Let the great be blessed for the joy they cause to fall on the world like refreshing dews."

There are two seasons in our world—the one called "moderate," the other "extreme." In the extreme season the heat is far beyond the most powerful heat prevailing in your tropics. Special precautions are then necessary to preserve the health of the people. None are allowed to expose themselves to the sun during the greater part of the day; a cooling regimen is enjoined, and animal food is forbidden for a certain period. In both seasons the light by day is intense; its nearest approach to colour is a warm, bright, golden hue, not the cold, white, greyish hue of your climates; and its red shades are sufficient to light our caverns and passages through the rocks to a certain distance.

Those who confer large benefits on the world are naturally entitled to enjoy a portion of the wealth and well-being they have successfully laboured to increase.

This truth I constantly bore in mind, and in spacious galleries perforating the rocks I built the Trombetski, or Internal Cities, for the especial use of those whose superior intelligence had been occupied for the good of the world. Here, sheltered from the scorching rays of the sun,

are the palace residences of the higher classes during the extreme season. These galleries serve also to shorten distances between remote parts of the external world. With their streets and passages they form of themselves cities, with scarcely less movement than in those without.

Light is admitted through occasional apertures—some natural, some made by man. It is not as vivid as that of the external world, but subdued and beautifully soft, is ample indeed for all purposes by day, like the pale red of the shade in the external world. Even at night artificial light is not ordinarily required in the open air, the shade of the red light of night being sufficient. Both sea and fresh water in abundance is brought to every part of the internal cities, which abound in waterfalls and fountains, nothing being omitted that may contribute to beauty, health, or comfort.

Many of the most lovely flowers and plants in the external world are those which flourish in the red shade, and are, therefore, eminently suited to the internal cities, where, planted in profusion, they flourish greatly, and emit aromas like your essences, but invariably fresh, sweet, and wholesome. Their natural beauty and odours are increased by electricity, an agent by means of which we can give most beautiful fragrance—nay, colour, form, and variety to flowers in general.

The communication from the palaces in the external world is often by means of a winding path, descending from the basement of the upper palace to the palace in the internal world. By means of machines worked by electricity we have facilities for excavating earth; and where rocks or hard substances intervene we can remove large masses by the application of explosive electricities. These paths are therefore excavated with ease.

My palace, situate on the summit of the upper mountain city, communicates with a magnificent summer palace, reached easily by a well lighted descent. The daylight in the internal palaces is peculiarly beautiful, almost unearthly. Pictures of life-like power are painted expressly for this light.

In my summer palace is a saloon of very great proportions, with a floor of ivory inlaid with pearls. This saloon contains more than 150 pictures, works of our great artists, representing the principal events of my life. In these the figures are large as life. Here are depicted extreme perils which I had undergone; here are the present times contrasted with the past; and thus the benefits conferred by my reign are presented in a manner which appeals at once to the heart.

SUNSHINE PICTURES.

Great discoveries had been made of the enormous resources afforded by the sun. By the aid of machines this power is greatly utilized in manufactures, sciences, and arts. The loveliest colours of our fabrics are those imparted by the action of the sun with the aid of instruments fitted to the purpose.

When we desire to produce in a painting the effect of sunshine, the rays of the sun are attracted and permanently fixed on the parts of the picture we wish to illumine. The effect produced is as though the sun was actually shining on the picture. The effects of sunrise or sunset— the effects of the most brilliant, as well as the least vivid, sunshine—can be produced at will, and are exactly those of nature. Some of these effects are so vivid, that it would dazzle the eye to look on the sunny parts of the picture for any length of time.

A preparation sympathetic to the sun's rays having been rubbed over the part they are intended to illumine, the rays are concentrated there by means of an attracting and concentrating instrument. Another solution is then thrown rapidly on the part illumined in order to fix the rays permanently. A brush was used at first; but, in spite of all care, this left its deep shadow, which greatly marred the effect. Even now much care is necessary, and the solution must be thrown from the side with considerable address, so that the sun's rays may not be intercepted. This solution serves also to fix the rest of the colours. The picture is painted on a fine material like linen, of great durability.

This art of using the sun's rays was much used on the paintings in my summer palace. The brilliant sunlight of the outer world thrown on the principal figures produced a greater effect in the subdued light of the internal city.

XVIII.

THE PICTURES.

> "Let pictures speak to the eye, to the ear, to the taste, to the heart, to the head, to the concentrated light of the soul, to the imagination as well as to the understanding. If they do not rouse good aspirations, cast them into the fathomless ravine, there to perish, a fitting food for the poisonous fungi that cover its sides."

Among the pictures to which I refer is a series representing the following subjects:—

I. FOUNDING OF THE SCHOOLS. II. THE OPENING OF THE AMUSEMENT GALLERY. III. MAN. IV. WOMAN. V. MARRIED LIFE. VI. FLOCKS AND HEEDS. VII. THE ALLMANYUKA. VIII. THE STAR INSTRUMENT. IX. NAVIGATION BEFORE AND SINCE MY REIGN. X. CONSUMPTION OF THE VITALITY. XI. MADNESS. XII. THE EXPOSITION OF THE NEW DOCTRINES. XIII. THE REBELS. XIV. THE MOUNTAIN SUPPORTER. XV. INVENTION OF THE LEAF INSTRUMENT. XVI. SUN-POWER AND ITS APPLICATION TO MANUFACTURES, AND FOR HEALTH PURPOSES. XVII. OPENING OF THE ELECTRIC THEATRE. XVIII. INVENTION OF THE INFANTS' EXERCISING MACHINES. XIX. THE INSTALLATION OF THE CHARACTER-DIVERS AND PRECEPTORS, IN PRESENCE OF THE TWELVE KINGS. XX. THE VALLEY OF THE ROCKS. XXI. THE CONSUMMATION.

I. THE FOUNDING OF THE SCHOOLS.

Education before and since the Tootmanyoso's reign is typified.

On one side a number of poor intelligent children are depicted wandering in ignorance. On the other is seen the college as now established, with indications of results. The one part of the picture is seen as if it were enveloped in darkness, whilst on another part the sun is shining brilliantly.

II. THE AMUSEMENT GALLERY.

The opening of the first Amusement Gallery is here depicted with the Tootmanyoso attending.

This is an interesting picture. It exhibits the gallery, with the different playthings and amusements, toys, musical instruments, live birds, small animals, flowers, and other objects. Amid these are shown the interest and delight of the little ones, happy groups of merry faces, the joy and gratitude of the mothers, the Tootmanyoso's satisfaction in contemplating his work, and the intent observation of the "Character-Divers," and "Overlookers," with other varied and interesting features.[1]

[Footnote 1: See p. 202.]

III. MAN.

Man is shown as he was before, and as he had become after I as Tootmanyoso had reigned about one hundred of your years. Man's life had been lengthened from your average age to one which before the employment of the means enjoined and carried out in my reign would have been considered impossible.

The different stages of man's life during both eras are here contrasted in every gradation. Thus we have the child as he was, the child as he is, commencing his education, and his entry into manhood; the coxcomb and dissipated man of former times, and the man of the present era,

following the road leading to his own happiness and the good of others; middle age—the man struggling to draw the load up the hill with painful efforts, the other man engaged in congenial occupation; lastly, the disappointed and the happy old age.

IV. WOMAN.

In like manner we have a series of pictures showing woman's former state; her present education, in the representation of which episodes are given of her progress in her own sphere to the level and companionship of man. Reference is made to the means of increasing her beauty, and employing her charms for her own and man's happiness;[1] the gentleness of her nature in softening man's lot, whilst she is supported and defended by him; woman as a mother, her devotion to her children, and her joy and gratitude in contemplating the development of their strength and beauty through the means enjoined and practised in my reign.

[Footnote 1: See p. 94.]

One picture, let me add, represents the mode of choosing a husband,[2] and another represents ceremonies used in the preparations for marriage.[3]

[Footnote 2: See p. 104.]

[Footnote 3: See p. 120.]

V. MARRIED LIFE.

In the picture relating to this subject we first show marriage as it was. The wife and husband are rarely by each other's side; when they meet they are in common attire, and receive each other with frowns; the wife, in grand costume, smiles on strangers, and so on with other episodes of former married life.

With this state of things is then contrasted, in every detail, the happiness of the married state as it now exists.

VI. FLOCKS AND HERDS.

These are pictures showing the spare and lean cattle of earlier times, the former paucity of our flocks and herds, and the present innumerable supplies,—the result of good treatment, and of people's obedience to a law of mine which forbade them to slaughter the female, so that our resources for multiplying our stocks should not be diminished. The present humane method of treating animals, and the dispatching of the animal without pain, are admirably depicted.[1]

[Footnote 1: See p. 213.]

VII. THE ALLMANYUKA.

The different stages of my progress in creating the Allmanyuka, or new food, substituted by me for a strong, stimulating, and injurious condiment previously in general use, are represented in another series of paintings, showing the incipient thought and its perfection, the fruit in its various phases, my anxiety while watching the growth of the fruit, my joy when success had crowned my efforts, and the gratitude of the people.[2]

[Footnote 2: See p. 220.]

VIII. THE STAR INSTRUMENT.

The Tootmanyoso is seen looking through the "Star Instrument," while worlds are opening in the distance. This "star instrument," or "world viewer," is a gigantic telescope of immense power, aided by electricity, constructed for me at my suggestion.[1] The power of our telescopes is wondrously increased by electric and chemical combinations, but this one excelled all others in magnitude and power.

[Footnote 1: See p. 299.]

IX. NAVIGATION.

Navigation before and since my reign is here depicted. The frail and sluggish ships of former times are contrasted with the swift and powerful ships constructed in my reign.[2]

[Footnote 2: See p. 268.]

X. CONSUMPTION OF THE VITALITY.

An episode connected with the discovery of the incipient cause of this malady is here represented.[3]

[Footnote 3: See p. 235.]

XI. MADNESS.

In a series of pictures are portrayed various incidents illustrating the injuries formerly inflicted from ignorance of the causes of the malady, the really mad having often been regarded as sane, whilst many of the sane were treated as mad. Every phase of the malady as it formerly existed is depicted, as also the discoveries and incidents attending its detection and cure in its incipiency.

XII. EXPOSITION OF THE NEW DOCTRINES.

While representing the Tootmanyoso expounding some of his leading doctrines, the artist has given to many of the countenances a fearful expression of hatred and incredulity, while the Tootmanyoso's calm and settled purpose is grandly expressed in the dignity, eloquence, and unswerving faith depicted in his aspect and general bearing.

In this picture, too, are seen figures of children clothed in rich habits, who had been brought up in idleness, and taught to respect little else than money; some deriding, some in the act of throwing missiles at the principal figure, whom others are revering.

The poor people's joy when relieved by the Tootmanyoso from misery and oppression, and told that the gates of honour were open to themselves and their sons and daughters, is plainly shown. The beaming intelligence of beautiful children with lofty aspirations, expressing innate love of good and desire of knowledge, hitherto held back by want, is also represented. All this is more beautifully expressed by the painter than words can convey.

XIII. THE REBELS.

An episode in the Tootmanyoso's life when, alone and unarmed in his study, he was surrounded by a band of armed men, who had bound themselves by oath to murder him unless he complied with their rebellious demands, is here recorded in a picture, in which is portrayed the noble figure of the Tootmanyoso, unarmed and bareheaded, at the mercy of these furious armed men, who have the expression of wild beasts in their rage. The painter nevertheless has succeeded in giving to the faces of the rebels a cowering expression, as if they were inwardly awed by the undaunted calmness and aspect of the man they had come to destroy.

XIV. THE MOUNTAIN SUPPORTER.

Besides the most remarkable views of this wondrous work, the different interesting incidents attending its construction are recorded. Here, also, is portrayed the unsupported Mountain Arm, threatening many cities with destruction, as it appeared before the construction of the Supporter.

XV. INVENTION OF THE LEAF INSTRUMENT.

The discovery of the properties of leaves, and the invention of the "Leaf Instrument," by the aid of which fallen leaves are utilised as a valuable means of enriching the Earth. This was a great boon to my world, greatly increasing the fertility of the land and the excellence of the crops.

XVI. SUN-POWER.

The discovery of Sun-power; its application to manufactures and the arts; to various medicinal purposes, and to invigorating the constitution and brain of man.

XVII. THE ELECTRIC THEATRE.

The opening of the first Electric Theatre, and the exhibition of the wondrous feats accomplished by Electricity.

XVIII. INFANTS' EXERCISING MACHINES.

The Tootmanyoso suggesting to one of his scientific men, Drahna by name, the machines, the use of which prevented many of the accidents and diseases incident to infancy. There are many other pictures illustrating the discoveries by which health and beauty are preserved, and man's life is prolonged.[1]

[Footnote 1: See p. 187.]

XIX. INSTALLATION OF CHARACTER-DIVERS.

The Installation of Character-Divers and Preceptors is a ceremony of a very solemn character, and takes place in public, the Twelve Kings presiding. The candidate engages solemnly to fulfil the duties strictly and impartially.

XX. THE VALLEY OF THE ROCKS.

The Tootmanyoso addressing the people in the Valley of the Rocks; an extremely picturesque locality, studded with rocks, which, by his orders were sculptured into groups of gigantic statuary, calculated to impress the people's minds with grandeur and beauty.

XXI. THE CONSUMMATION.

The Tootmanyoso, on the completion of his work, is seen offering up thanks to Heaven.

The principal figure stands out from the picture in a marvellous way. A glory of light shines on the monarch's brow, and his eyes are illumined with heavenly fire and inspiration. In the background are the people, surrounded by plenty, and guarded by myriads of angels. Our painters have the art of giving to their delineations of angels an incorporeal vapoury appearance, like that of forms sometimes seen in sleep. The Tootmanyoso is in the act of accompanying his hymn of praise with the grand music of the harp. This instrument with us is of gigantic proportions, and, touched by a skilful player, produces lovely effects. It is not supported by the executant, but revolves easily on a ball and socket, to which, having been placed at the exact inclination required, it is fixed by a small bolt before he intones his hymns.[1]

[Footnote 1: See p. 243.]

It was delightful for me to go down occasionally to the great room, and to meditate on these pictures, and the subjects that had inspired the painters. The light and tone of the place, and the general impression made upon me, seemed to savour more of heaven than of earth.

XIX.

WOMAN.

CHOOSING BY HAND—CHOOSING BY FOOT—GIRLS' DOBMITORIES—EARLY RISING—PRAYERS.

> "Let woman be as soft as down, as sharp as a lancet, as sparkling as the diamond, and as pure as Stainer's fount." [1]

[Footnote 1: See p. 149.]

Woman is the object of much solicitude and consideration, and enjoys many privileges. The tendency of her education is to qualify her for the position which nature intended her to hold as the companion and helpmate of man. However she is instructed, though not to so great in degree, in many branches of art and science, cultivated by the stronger sex, the design being to enable her to appreciate the efforts of man and to encourage and comfort him in his progress, but not to take his place. With us women are happy and contented, and words of complaint rarely fall from their lips.

Great precaution, however, is taken lest they should overwork themselves in the severer studies, or even in the lighter occupations, the tendrils of their nerves being so delicate, that, if once injured, they would seldom be restored to their normal condition.

There is this marked difference in the education of the two sexes. Boys are educated in manly and athletic sports, in all that can give them strength and physical development, and call out their masculine qualities, while the occupations and exercises allotted to girls tend to confirm and develope their natural delicacy, gentleness, and sweetness. The result, is, that whilst men are large of frame and endowed with great force and strength, the women in Montalluyah scarcely ever exceed the middle size. They are beautiful, and thoroughly feminine in form and feature, while in disposition they are sprightly, ingenuous, and truthful. Their carriage and movement are marked by elegance and grace, their voice is of melodious softness, and they are altogether distinguished by a peculiar charm and fascination.

Most of our women are brunettes, with rich black silky hair and eyes—large and beautiful as those of the gazelle; but the fair with blue eyes are considered the more beautiful—probably on account of their rarity.

The beauty of the woman, like the muscular development of the man, is greatly aided by the care now taken of children from their birth. Women were formerly left to themselves, and many, either from ignorance or want of thought, neglected to do justice to their proper qualities and charms, whilst they became enamoured of ostentation and indulged in a thoughtless extravagance which served to kindle the envy of their neighbours, and to bring ruin to their husbands. Whilst seeking extraneous aids to beauty, they neglected the simplest precautions for its preservation, though, when their charms had faded, they eagerly sought means to repair what were incorrectly called the ravages of time, but were only the unavoidable consequences of their own neglect. The heavenly light of their eyes had become dim; their complexions, originally of a warm purity, had become of a yellow tinge; their skin, soft to the touch and beautiful to the eye, had become shrivelled and hard; their dark and beautiful hair had become grey or fallen off, deprived of the nourishment which had been prodigally wasted, and the undulating and elegant form had often sunk into a misshapen mass.

We have now a belief that the harmonious development of the body is not only physically and aesthetically desirable, but assists in the healthful development of the mind, to which, for a time, that body belongs; beauty being regarded as "a precious gift from Heaven which it behoves every woman to preserve and improve." The exceptions to beauty are now rare, and women are scarcely less lovely in age than they were in youth. In many cases time has actually enhanced their attractions, improved, through the additional charm impressed on the countenance, by the sweetness and gracefulness of their nature.

Cosmetics for the reparation of beauty are not needed, but women of all ranks are enjoined to use various precautions for its preservation. We have cosmetics very efficacious for protecting the face from the burning sun, for keeping cool the natural moisture, for preserving the complexion, and for preventing wrinkles. In our climate the heat distends the skin, and by inducing excessive perspiration, reduces the fat required to support it. But for our cosmetics, wrinkles would be formed at an early age. As it is, the skin and complexion, as well as the form and features, are now preserved to the last period of life.

The hands and feet, and indeed all the details of beauty, are much cared for. The toes of the feet are exercised in a variety of ways, and are almost as elastic and pliable as the fingers, being, as well as the ankles ornamented with jewels. Soles, secured with sandals protect the under part of the foot. On many great occasions the sandals are dispensed with, the sole being secured by a preparation rendered adhesive by the warmth of the foot. This preparation is easily removed by the application of a sponge and water.

CHOOSING BY HANDS.

A lady's hands and feet form so great a feature in the estimation of her beauty, that they are made a distinctive test for deciding preferences on certain occasions.

Thus, partners for the dance are sometimes chosen in a way that excites a great deal of mirth. The custom is called "choosing by hands."

A large round screen, made expressly for the purpose, stands at one end of a ball-room; behind this a certain number of ladies—generally twelve at a time—place themselves, accompanied by the master of the ceremonies. The opening in the doorway is then closed. The screen, though not closed at the top, is sufficiently high to completely mask the ladies, and there are in it twelve or more small apertures, lined or faced with a soft crimson or other warm-coloured velvet, sufficiently large to admit of a hand being passed through, so that it may be seen and criticised on the exposed side of the screen. Through one of these openings each of the ladies passes her right hand, and the gentlemen choose the hand they prefer, each by touching a spring nearest the hand selected, and at the same time announcing his name. The chosen one is immediately led out from behind the screen and presented by the master of ceremonies to the gentleman, in the midst of the applause or merriment of the company before the screen, and of the rest of the ladies behind it. Ladies are very particular about their hands and nails, and, as may easily be conceived, give them a little extra attention before going to a party.

CHOOSING BY FOOT.

There is another peculiar mode of choosing partners—"by foot"—but this is conducted in a different manner, and is made to depend on the superior beauty of the foot, as decided by an arbiter, who is chosen by the company, and who is, of course, a man famous for his taste and knowledge of the beautiful.

While the arbiter pursues his duties, the ladies are concealed behind a screen, which is, however, open sufficiently at the bottom to disclose the foot and ankle. She to whom the palm is awarded has the first choice of a partner, and the others follow in succession in the order in which they have been ranked. This diversion, though exciting great interest, is not so happy as "the choice by hand." The ladies whose feet are placed in a

lower rank often think themselves aggrieved, and are slightly jealous of their rivals, for in spite of the efficacy of my laws, I could not—whilst giving just triumphs to superior beauty— altogether prevent a feeling of disappointment in ladies who saw the palm given to others by one recognised as an honest and able judge,—a man whose taste was known to be irreproachable.

When the hand and foot of a young lady are inclined to coarseness, while at the same time her talents and goodness entitle her to a superior position, the fingers or toes, and afterwards the hand and foot themselves, are bound up, for a certain number of hours each day. We do not like "contradictions," or, as I have before observed, we object to a garment partly of rich brocade, partly of common stuff.

GIRLS' DORMITORIES.

At the head of all the means for preserving beauty are cleanliness, frequent ablutions, and a habit of early rising. In these girls of all ranks are well schooled, and to show you that in their education we do not neglect what are erroneously called trifles, I will tell you of one of the modes of treatment commonly employed in connexion with such matters.

In the colleges each girl has a separate sleeping-room, as we have a great objection to young girls sleeping together in one room, and inhaling each other's peculiar gas thrown off in the form of breath during their slumbers. Besides, when that practice prevailed, as it did formerly, the girls were in the habit of talking to each other upon subjects which often suggested inconvenient thoughts, even to the best disposed, and confirmed others in tendencies which eventually grew into confirmed vices.

On the pupil's retiring to rest, the door of her sleeping-room is fastened from the outside by one of the matrons. The girl has no means of opening it herself, but by touching a little spring at the head of her couch she can at any moment communicate with the matron night-watchers.

These matron night-watchers—two for a certain number of girls—are on the alert during the night, remaining in a place called the "watch," where are suspended the electric bells, underneath each of which is the name of the girl occupying the room to which it corresponds.

Light is supplied to every dormitory by means of a lamp inserted in the wall, and opening from the outside. Half an hour after the door has been closed the matron extinguishes the light, without entering the room. The external red light of night is also excluded; for, as with you, darkness is thought much more conducive to refreshing sleep.

In consequence of the warmth of our climate, girls, being naturally rather luxurious, are not inclined to rise early. They are, however, all required to rise at the same hour, and this is the mode adopted for rousing them. At the end of each room, opposite to the sleeping-couch, is a kind of gong made of metal and formed like a pair of cymbals, united at the base by a hinge, and kept together by a bolt at the top.

At the hour of rising these cymbals are set in motion by the matron in the watch room, who touches a spring by which the bolt fastening the cymbals together is removed. Thereupon the cymbals immediately clash together, and produce loud discordant sounds. The girl, not liking the discordant noise, loses no time in stopping it, which is beyond her power unless she leaves her bed and fixes the bolt that keeps the two cymbals together.

This done, she goes into an adjoining room, in which are a bath and other preparations for her ablutions. The door communicating with the sleeping-room closes of itself, whereupon the matron enters the apartment, pulls off the bed-clothes, and opens a large skylight at the top, to admit the fresh air.

The ablutions of all the girls ended, they descend to their repast, after which they say a very short and simple prayer. In this thanks for their refreshing sleep and for the food they have partaken are united into one petition that the labours of the day may be blest by the Supreme.

The practice which formerly existed of saying long prayers before the girls partook of their first repast is abolished. Many young people have keen appetites after a night's rest, and when the old custom prevailed their thoughts would be wandering in a direction very different to that ostensibly taken by their prayers.

Although saying set prayers before the early meal is now not required of the young girl, gratitude to the Dispenser of all good is successfully inculcated. On the walls of the repast room are inscribed in large characters appropriate precepts adapted to the young intellect—such as "Think of God before you eat." In the meaning of these the young are instructed at an early age, and by various devices are imperceptibly led, through the medium of the eye, the ear, and the understanding to acquire the habit of directing their thoughts in conformity with the spirit of the precepts.

A careful discipline prevails, as I have intimated, in all matters relating to the education of girls of every rank, but, as soon as they attain one amongst the higher positions and marry, they are allowed, nay, encouraged, to indulge in many luxurious habits, to dress beautifully, and to wear magnificent jewels, but only according to their means.

As an instance of luxury in simple things, I will mention a peculiar soft reclining cushion, or settee, particularly adapted to exhibit the lady and her costume to the greatest advantage. As the lady sits down, however gently, it yields to the pressure, leaving her surrounded by the portion not pressed, which thus forms a background, and, as it were, a frame to the living picture. When she rises, the elastic cushion resumes its pristine form. The least movement is sufficient to cause the seat to rise or fall, and I have often seen ladies amuse themselves with this gentle exercise.

To these settees a pad is attached. On a spring being touched this opens, and forms a fan which by its own movement fans the lady, and at the same time emits a refreshing perfume, continuing to act until the lady closes it by touching a spring.

These settees are covered with silk of various colours, adapted to the ladies and their costume; a peculiar crimson ornamented with gold is the favourite colour. They are allowed to be used by the married ladies alone, and are much liked by them, the more so perhaps that in the colleges girls of all ranks are not allowed to use any seats but those without backs.

XX.

CHOICE OF A HUSBAND.

> "Women are the mothers of the nation. The happiness of our life depends on theirs. They have much to bear. If we neglect them we neglect ourselves."

Having taken care by means of education to eradicate all incipient faults in woman, to confirm her health, to increase her powers of attraction, and fit her for the station which her talents and virtues entitle her to fill, we take the best means to ensure that the maiden shall at the proper age marry the man most pleasing to her, and most likely to secure the happiness of both.

In every district a council of ladies, who have passed through certain ordeals, and a council of elders, regulate all matters relating to marriage. Over each of these presides a man of a certain age, and of spotless character, whose qualities, actions, and mode of life have been observed and recorded from early youth.

Let me more particularly describe how the lady makes choice of a husband.

During thirty-one evenings in succession the girl intended for the marriage state is placed in an assemblage composed of eighty-five young men, one of whom she is expected to choose, but however quickly her

mind may be made up she is not allowed to announce her decision till the thirty-first evening has arrived.

The eighty-five young men are selected by the councils from those only who have declared their intention of marrying. Any man of the same rank as the lady, who is desirous to be one of the eighty-five, is generally nominated at once, and if the girl has any especial liking for one particular person, she is allowed to communicate the fact privately to one of the ladies of the council.

In cases, however, where both the councils are of opinion that there is any serious objection to the eligibility of the young man, they have the right to withhold the summons. This right they rarely exercise, and never until after communicating with the lady where she has named the gentleman. Every contingency is well considered; besides, the regulations which govern every step connected with these meetings, and the sacred feeling with which the councils regard the delicate trust confided to them, prevent any inconvenience which might otherwise arise from their proceedings.

At these meetings the girl wears a peculiar headdress with a star in front, to distinguish her from other ladies who are allowed to be present, but who however are expected not to pay court to the gentlemen. It would have been unreasonable to require the exercise of so much self denial under the old system, but an acquisition of the power of self denial forms part of the training prescribed by my system of education, and is now ordinarily practised when needed. This privilege of being present is highly prized and eagerly sought by ladies, if only for one of the thirty-one chosen evenings.

The gentlemen who wish to have their pretensions favourably viewed, pay court to the young maiden of the star, and any gentleman who it is thought may prove agreeable can be called by the lady of the council, one of whom is always seated near the girl.

On occasions when some of the gentlemen present would rather not be amongst the aspirants, it is amusing to see them retire behind the others, hoping to escape without offence against the rules of good breeding. Should one of these be called by the lady superior, he will probably give himself awkward airs, and endeavour to be as little engaging as possible. The maiden generally looks modest and blushing, and needs the assistance of the lady superior, who is not unfrequently obliged to represent her in conversation.

Before a week has elapsed the maiden of the star has generally intimated by look, who is likely to be the selected one. Sometimes, however, she is fickle, and when one, encouraged by her expressive glance, has paid her court, she will encourage another and another, and another,—for on these occasions she has full liberty of action.

It is amusing to see the efforts of pretenders, and the expression put on, whilst overwhelming the lady with amiabilities when her thoughts and perhaps her glances lie in another direction. She in turn may be obliged to use all her power to attract the one she desires to select. If she be a coquette, each one of many will think that he himself is the fortunate swain on whom her choice will fall. The doubts existing in these instances cause great excitement and amusement, and between the meetings pearls against rubies, diamonds against diamonds, and other precious stones are staked on the event.

Great is the agitation on the thirty-first evening, when the maiden is expected to declare on whom her choice has fallen. She proclaims it by presenting the chosen one with an appropriate flower, and thus is spared the pain of a verbal declaration. A band of music then announces by a particular and well-known strain that the choice is made, and a march is played, to the measure of which the chosen one leads his intended to a throne on a slightly raised dais.

Each of the gentlemen then approaches, successively presenting to the maiden a flower,[1] which he lays on the table in front of the dais, wishing her at the same time happiness and joy.

[Footnote 1: See p. 126.]

The lady will perhaps kiss the flower presented when anxious to show regard for the giver, whom, however, she has not been able to choose. This ceremony of presenting flowers having been concluded, the future bride and bridegroom lead the way to the banqueting-room.

On the evening following, a meeting of three hours' duration takes place between the chosen one and the maiden, who is accompanied by the lady superior of the marriage council. The two converse, and if after mutual explanation anything incongruous is found, either party is at liberty to object, and the marriage does not take place; but if the three hours pass without objection no further question can be raised. The two are then looked upon as betrothed, and after a certain interval the marriage takes place.

It sometimes happens that at the meetings of the eighty-five the maiden, distracted between contending aspirants, is unable to give the preference to any. In that case she is put back for another year.

At the end of the year another assembly of young men is called; the number invited is limited, however, to forty-five, and the evenings are reduced to twelve. Should the lady again fail to select—a very improbable occurrence—another and final assembly would be called for the following year, the number of gentlemen being reduced to twenty-one, and the evenings to seven, and if the lady should still remain undecided she must be content to enjoy single blessedness during the rest of her life. For my own part, I do not recollect more than one case where the selection was postponed beyond the second year.

XXL.

THE DRESS OF SHAME.

SUN-COLOURED SILKS—THE ART OF PLEASING.

"Let not the ranks of the good be defiled by the presence of him who has betrayed his trust."

I never knew an instance of the trust confided to the Marriage Councils being in any way abused. None are selected for the office, who have not, after years of probation, shown themselves in every way worthy of the sacred trust.

A severe punishment would attend any deviation from the strict path of honour; the offender, condemned to wear "the dress of shame," would probably be degraded from his rank. After a time had passed, sufficient to exhibit his punishment as a warning to others, he would, perhaps, be banished to a distant country. It should be understood that every other part of our world is less agreeable than Montalluyah.

The dress of shame to which I have just referred, is a common robe formed of one piece, and of sombre colour, on which dress are placed marks indicating the nature of the offence and the name of the offender. Similar marks are likewise placed over his house, and are well understood by the people.

Independently of the deep degradation implied by this costume, the entire privation of his ordinary dress would alone be a punishment to the offender, for the people are very fond of dressing well. I encouraged the love of dress particularly in woman, for I thought that when properly regulated it was good, and heightened the beauty of the picture. With us the style of dress and the taste of its arrangement are thought indications of the mind within, but none are allowed to dress or wear jewels beyond their station.

After marriage ladies, according to their rank, are allowed to wear very rich costumes. The textures are beautiful and the colours very brilliant.

SUN SILK.

The sun gives lustre to fabrics and imparts colours which can be supplied by no other means. In your planet such brilliancy is never seen except in the sun itself. We have, for instance, a silk of a very remarkable colour, which is highly prized by the ladies. Of this you may form a remote notion if you imagine a bright silver green radiant with all the vividness and brilliancy you sometimes see in the sunsets of your southern climes.

Some of our silks in the natural state are of a chalky white. This silver green is obtained by exposing the silk, when woven into the piece, to the rays of the sun during the half-hour after noon; no other time of the day will answer as well. If the silk were kept beyond the half-hour, the tint given would be unequal. The material is exposed to the influence of the sun in a machine, which has two different actions; by one, that lasts for a quarter of an hour, the silk is unrolled, and by the other, which is of exactly the same duration, it is rolled back, the two operations being so regulated as to finish in the half-hour two "pangartas," equal to about twenty of your yards, the quantity required for a lady's dress. The colour penetrates through the silk, but the side exposed to the sun is the more brilliant.

Our Ladies also wear a silk most beautiful in texture and colour, called "Sun Silk." To obtain this silk, the sun is made to bear on silk-worms at particular hours of the day, and the result is, that the silk of the cocoon is of a colour resembling that of a bright sun.

There are numerous other beautiful colours prepared in different ways under the influence of the sun, and, by the action of the same luminary, fabrics for ladies' dresses are endowed with the power of repelling heat.

THE ART OF PLEASING.

Women are instructed in the art of pleasing, and the handsomest and most gifted exert themselves to this end. They are required to attend to their personal appearance abroad and at home. The married especially are enjoined to attend to this as much in the presence of their husbands as before strangers. A different custom prevailed in former times, when women after they had been some time married, thinking that their husbands' affection was secured, gave themselves no further care to please him, though still taking pains to appear handsome and fascinating to others. It was for visitors and strangers that the most comely apparel and the most engaging manners were put on; the consequence was, that the husband often preferred the society of those who in appearance at least seemed to care more for him than did his own wife. This was the cause of much of the immorality which formerly existed in our world.

The example, too, on children, was most injurious; it schooled them in deceit and disingenuousness. My laws declare that those, whether man or woman, are dishonest, who wear a behaviour to each other after marriage different to what they did before, for they have gained the affections of their victim by deceit—pretending one thing and doing another.

XXII.

COSTUMES.

> "The harmonious beauty of dress gives often indication of the mind of the wearer."

While speaking of materials for dress, I will venture to interrupt "the preparations for the marriage" by giving a short description, of some of our costumes.

As certain of our manners and customs, besides having a character of their own, may be said to partake both of your Eastern and Western usages, so do our dresses partake both of your oriental and classical costumes.

LADY'S COSTUME.

The costume of the lady is loose and flowing. A jacket or bodice of purple tissue covers the right arm, and one side of the body to the waist, leaving the left arm, shoulder and part of the bosom exposed.

A small waistcoat, made of a crimson tissue, is worn underneath the bodice.

The tunic is of white tissue, beautifully embroidered with a gold thread. The short skirts show trousers of golden tissue, full, and not unlike those of your Turks. They are confined at the ankle by anklets, made of plain

gold for the middle classes, whilst those worn by the upper classes are of ravine metal, ornamented with precious stones.

There are fringe trimmings to the tunic made of precious metals of every variety of colour, selected for their lightness and beauty, and enriched at their extremities with precious stones. The colours of the costume vary with the taste of the wearer, but are selected to harmonise one with another, and all with our brilliant light.

The feet are protected by a sole secured either by sandals or by means of an adhesive material.

Women are not allowed to wear stays, or in any way to confine the waist. Indeed such encumbrances would serve no good purpose, inasmuch as their forms are actually beautiful; their spines, in consequence of their physical education, are strong, and every part of the person, which might otherwise possibly require support, is in its proper place.

HEAD-ORNAMENTS.

In the hair is sometimes worn an ornament forming two wings, each consisting of a single diamond, which moves on small fine hinges, and is so arranged that the least breath of air will set it in motion. In the centre uniting the two wings, is a small crimson stone surmounted by a large round stone of purple-blue, from which sprouts out a very fine dagger of a greenish-gold colour. The rest of the head-dress is made of fine metal, chosen for its lightness, of the same tints. These metals are of equal, perhaps greater value, than gold, but are chosen for their qualities. The necklace and anklets correspond in character to the headdress, with the addition to the former of one large pearl, which hangs to the wings and rests on the lady's bosom. The bracelets are made in your Greek style—bands of gold set with large pearls. The soles to protect the feet are gilded with ravine metal. The sandals, which are of purple enamel of a peculiar kind, are often ornamented with jewels. The fan is composed of the choicest feathers of our native birds, and set in ravine metal of the most beautiful kind, studded with pearls and other precious stones.

We have pearls, diamonds, and other precious stones of a very remarkable kind, whose electricities are supposed to have a certain influence over the wearer. Thus, diamonds in Montalluyah have, it is thought, a tendency to increase the circulation; and when I have been fatigued by excessive study, a chain of peculiar diamonds has been placed near my skin to revive me.

Ladies sometimes wear a small turban with a gold tassel on the crown of the head. For the open air the head is covered with a turban, in front of which is a small shade, which, by means of a spring, falls down and protects the eyes and face from the sun.

Ladies of superior quality rarely wear turbans, for they seldom go abroad in the heat of the sun, and when they do, they are shaded by a canopy, supported at each corner by a pole, and borne by four men. When walking in their grounds ladies use long veils, covering them from head to ankle, which they also wear when on horseback, but they never mount in the heat of the sun.

Every unmarried woman, without exception of class, wears a distinctive feature on her dress. The drapery is fixed with a jewel to the right shoulder, and the right arm is bare. On the other hand, the married woman's arms are always covered with falling drapery, though by certain movements she shows the arm. It is not till after marriage that the lady is allowed to wear very elaborate costumes.

GENTLEMAN'S COSTUME.

By men an elastic linen case or chemise, made of a material which will stretch to any size, and cling to the form, is worn next the skin. This, reaching just below the knee, is short in the sleeves, and very ornamental about the neck, leaving the throat bare. It is changed daily by the poor, and twice a day by the rich. Over it is worn a tunic of rich material, with sleeves differing from each both in form and colour.

The trousers of the men consist of a large mass of drapery of very fine light material finer than cambric, prepared from leaves which have passed through a certain process, and are afterwards woven. This is wound round and round the leg. As many folds are required to protect the body from the scorching heat, it will be seen that lightness is an essential quality. The trouser, otherwise full, is narrow at the ankle, where it is confined by a band of the same material, of gold or of jewels, according to the quality of the wearer. Gloves are not worn by men, but their trousers being so massive they can place their hands in the ample folds when walking in the sun.

Another important article of male attire is a large piece of drapery, which, fastened in front and on one shoulder with a jewel chain, is carried to the back, and being attached to the opposite arm, falls in graceful folds below one knee, where it may be fastened. It may also be thrown back and worn as a cloak or covering; in any case it descends in graceful folds.

The feet of our men are bare, and are rubbed with an oleaginous preparation, which keeps them lithesome, and prevents them from being browned by the sun. The under part of the foot is protected by a sole secured by sandals. The hair, whether of the head or beard, is never cut, and we have no shaving, but we have means to prevent the hair growing on any part of the face.

The colours of the costume vary greatly; each man selects according to his taste, but they always harmonize. To give an example. If the drapery were crimson on the outside, the inside would be blue; the tunic, a very rich brown; the legs of the trousers, one red the other blue.

The only ornament worn by the men is a chain of ravine metal, sometimes plain, sometimes set with costly gems, and we have costumes all brown, relieved by this chain alone.

Out of doors the men wear a turban or head-covering, made of a very light material, beat out to the thinness of the finest wafer, and repellent of heat. It is very large, that the face and eyes may be protected from the

sun; and, moreover, it is furnished with a contrivance by which a current of air is kept constantly playing on the top of the brain.

XXIII.

PREPARATIONS FOR THE MARRIAGE.

> "Cling to each other, concentrate your hopes in each other, and if peevishness on either side arise, chase it away by a smile."

Shortly after the choice of a husband has been confirmed, preparations for the civil marriage commence. Night and morning the bride is purified with baths of choice herbs and flowers. During the fortnight prior to the solemnity myrrh and choice spices are added to the baths, and the hair, to which great attention is given, is combed with a comb that emits a peculiar perfume, which retains its force for months, attracted by the warmth of the head.

This comb is made out of one small part of the wood of a rare tree, the rest of which has no particular virtue; so that from a whole tree, only a single comb is obtained. Such combs are used solely for the brides, and for every bride a fresh one is provided. The hair is combed down loosely, the long hair hanging about the neck, shoulders, bosom, and waist.

The marriage costume is generally purple and gold, the rich being magnificently attired, and wearing beautiful jewels in the hair, on a small turban worn on the crown of the head, on the bosom, waist, hands, arms, and one of the feet, which is bare, while the other foot is covered with what may be called a silk sock, bearing various inscriptions, such as—

"May thy footsteps lead thee to virtue."
"May thy footsteps bring thee and thine to glory."

The bride is radiant with light and beauty; her face is not allowed to be hidden, and her neck, shoulder, and bosom are left bare on one side.

The parties meet in a great public hall, and in presence of witnesses, after stating their wish to be "doubled," *i.e.* married, sign a scroll, which the friends present subscribe.

The names of the newly-married pair are written in large clear characters, and affixed to the wall, that all passing by may see them.

The size and height of the hall are immense, but when after a certain time the scrolls accumulate, they can easily be rolled and raised higher, and with equal facility be lowered when this is requisite.

The civil ceremony over, we have feasting and rejoicing, and certain observances not unlike what formerly took place in some of the marriages among the more cultivated Eastern nations in your planet.

Seven young maidens wait at the bridegroom's house to receive the bride. The room intended for the reception of the married pair is beautifully arranged, various-coloured ornamental glass reflecting subdued tints on the objects around.

On each side of the bridal couch is the figure of an angel holding a scroll exhorting to wisdom, purity, love and truth. Hidden in the drapery of the couch are self-playing instruments, whose soft music, awakened by the agitation of the air, and accompanied by delicate perfumes, sounds like the song of angels.

The bridesmaids undress the bride and throw over her a silver-gauze transparent lace, which gives her a fairy-like, vapoury appearance, as she reclines on the couch, with her long hair partly covering the beautiful outline of her figure, and the bridesmaids strew flowers around her.

When all is ready, the young maidens send to bid the bridegroom enter, who, clad in a silken garment, is conducted by two friends to the threshold of the bridal apartment. The seven maidens then chant a short prayer, wishing the married couple all joy, and, each having kissed the bride, depart.

The day of the civil marriage is one of unalloyed joy. In the selection of the day even the elements are studied by men specially devoted to meteorology, who, with perfect infallibility, can predict the weather for a fortnight.

Three months after the birth of each child the marriage ceremony is repeated, the same assembling of friends, the feasting, and the same purification and adornment of the bride taking place as when the parties were married.

No religious ceremony, with the exception of a short prayer, takes place on the day of the civil marriage. The bride and bridegroom are supposed to be too much engrossed with the thoughts of their coming joys to give proper attention to prayers pronounced by others. The bride and bridegroom, however, are each expected to pray in private as their own hearts may prompt, and some days prior to the marriage a paper is given to each, in which some of the leading responsibilities and considerations are noted, to the end that, if necessary, their pious thoughts may be directed into the right channel.

The religious ceremony takes place at a convenient period, when a year has expired after the civil marriage, and we are justified in hoping that the newly married pair, by their conduct to each other, have given evidence that they are worthy of the blessings now to be solemnly invoked. When the day arrives the bride is dressed in white without a single jewel. Both she and the bridegroom prostrate themselves when receiving the blessing. As the ceremony is supposed to be exclusively religious, there is no feasting.

If the couple have had any serious dissension during the year the religious ceremony is postponed, but great efforts are made to reconcile the difference, and if these are successful the solemnity takes place.

When, on the other hand, a reconciliation cannot be effected, the law insists on a separation of the parties, who, however, may be reconciled at any time. As neither is allowed to marry again, polygamy is forbidden, and as irregularities are out of the question, a reconciliation can almost always be effected, unless, indeed, there is some cause sufficiently grave to render a separation necessarily final. Such causes are exceptional in the extreme.

* * * * *

The precautions taken in the selection of a husband and the watchfulness of our system, prevent any great incompatibility of disposition, and the existence of those evils which formerly were of daily occurrence. Provision is made even for those accidents which sometimes occur after marriage, and which of old had often led to disappointment and misery. For example, when it happens that a child is still-born, or for some reason must be put out of the way, neither the father nor mother is at first made aware of the fact, but the loss is immediately supplied. Every birth is instantly communicated by telegraph to the central department, at whatever hour of night or day it may take place. The number registered every instant is great, and the birth of twins is a frequent occurrence. When a child is born dead, one of a pair of twins is transferred to the mother, and placed in her arms. If she ask any question the nurse and doctor answer her gently and kindly, but are not allowed to mention the substitution.

It is not until the patient is completely re-established, and all is in order, that she is informed of what has passed, and she has then the option of retaining the child, or of allowing it to be taken back to its own mother. Cases of premature birth, or of deformed infants now however rarely occur, except as a consequence of accidents which cannot be prevented.

Husband and wife are now really considered and treated as one. At places of amusement, and in public conveyances, they pay for one only. In calculating the number of persons present, we say, for example, "there are 200 doubles, and 100 singles;" this with you would make 500—we count them as 300 only.

XXIV.

FLOWERS.

> "In the celestial spheres, flowers breathe music as well as fragrance."

Allusion has been made to the use of flowers at the "choice" meetings, as the medium through which the maiden indicates the gentleman on whom her choice has fallen.

Flowers are very beautiful in Montalluyah. They are highly cultivated, and great pains are bestowed upon them; their names are given to stars and to women, so that often a lady will at once be associated with a beautiful flower and a brilliant star.

Every flower has a well-known language of its own; many convey comparatively long expressions of emotion, both pleasing and the reverse, and the meaning of each may be qualified or increased by its union with others. In the language of flowers all at an early age are instructed. The meaning associated with each flower is universally understood, its name at once conveying its language as distinctly as though the whole of the sentence were spoken in so many words. Indeed many interesting, and even long conversations are carried on between a gentleman and lady through a floral medium.

A young lady, instead of entering into conversation or expressing her sentiments in words, may present a flower either in the first instance or by way of answer. A married lady receiving visitors has generally fresh flowers at hand, which she often separates to present one to the visitor.

The following are instances of language associated with flowers:—

Vista Rodo.—A plant bearing a little flower like a diamond in transparency and brilliancy, and exhaling from every green leaf a beautiful perfume.

"The stars in heaven thou makest to blush by the sweetness of thy breath."

"I deny not that they possess thy brilliancy,
But thy fragrance they deplore.
May I hope for the boon of thy lustre near me
Through the journey of life,
To teach me to be happy,
To cultivate my admiration of the beautiful,
To bid me seek the joys of home,
And teach me the greatness of my Maker!"

Oronza.—A flower unknown to your planet. It is white, the centre studded with little spots in relief, so closely resembling turquoise and pearls that unless touched they might be mistaken for real stones placed on the flower.

"At sight of thee, malignity flies away and the spirits of peace and goodness surround me, encouraging me to all great and noble deeds, making me forget to look back on my folly, and bidding me gaze forward into the future and the realms of hope.

"You exalt me; you purify me; say you will part from me no more."

Mosca.—The moss rose.

> ...."Come to me,
> Thy virtues are more brilliant than precious stones;
> Thy breath exhales intoxicating perfume;
> Thy beauty is a continual feast.
> Tell me thy heart shall be my haven,
> To my bosom I will press thee,
> And thy leaves shall embrace me with their fragrant affection."

Each kind of rose has its separate language. Thus, Javellina, the single-leaf hedge-rose, is associated with lines indicative of "the sweet purity of youth." Angellina, the white rose, is associated with lines indicative of "gentle endurance and pure love;" and Orvee, the yellow rose, with lines indicative of "affection combined with jealousy."

* * * * *

Some flowers have qualified, some disagreeable meanings attached to them.

No man, however nearly allied to a lady, or however great his cause for displeasure may be, is allowed to say to her anything unpleasant except through the medium of flowers.

The only exception is in favour of the husband, whose privilege is seldom used; not only because it is thought more civilised to use flowers as the medium on such occasions, but more especially because marriages are now so well assorted that occasion for complaint scarcely arises on either side.

At the marriage meetings flowers having the slightest disagreeable words attached to them are strictly forbidden.

As an example of flowers having a qualified or disagreeable import take the following:—

Ragopargee.—The white lily.

"Cold but truthful, and as constant as the drops of Mount Isione."

In a small recess of Mount Isione two drops of water, clear as crystal, constantly fall, having percolated the rock above. As soon as two drops have fallen two others succeed, two being the invariable number. The interval between the fall of each pair of drops is equal and scarcely perceptible.

These drops never cease to fall night or day, and they have already by this accumulation formed a lake at the base of the mountain.

Voulervole—Convolvulus.

"False allurements!
Thy beauty is to please but for a day,
Like the magnet it attracts us,
And then thou wouldst make us weep
By fading before our eyes.

"Go, fickle flower,
For thou shalt not be mine
Until more lasting; thou canst learn to be."

Mooreska.—Fuchsia.

"Thy beauty is dazzling;
But, alas! its bloom will fade
The nearer we approach.
For thy external attractions find no echo within.
I can never take thee to my bosom."

* * * * *

Romeafee.—The pink lily. This flower is associated with excessive love of dress, and the language attached to it ends with the words.

"As glaring to the eye as Kiloom."

The gorgeous appearance of sunset is personified in poetical legends by a master spirit, called "Kiloom."

The colours of sunset are gaudy and vivid beyond measure, and cast intense hues on all objects. Our sunsets, though grand, are far from being so agreeably soothing as those in your planet, but they leave an after-glow, which gives light during the night when darkness would otherwise prevail.

* * * * *

Flowers are profusely used in our great festivals. I collect a fete given to me on the occasion of an anniversary, when there appeared a cavalcade of one hundred camelopards, bearing each on its back a kiosk, in which was a beautiful woman. All the camelopards were united together, as it seemed to the eye, by wreaths of flowers, though in fact these concealed strong thongs, with which the animals were really secured. Each animal was attended by a swarthy native of the country whence it came.

XXV.

FLOWERS IMPROVED BY ELECTRICITY.

> "Marry nature's gifts the one with the other, amalgamate sympathetic electricities in their due proportions, and give increased beauty to loveliness, even as ye give increased strength to iron and marble, by welding their particles into one imperishable mass."

We discovered the mode in which nature operates in the production of plants and flowers, and our discovery has enabled us to give them new forms and varied colours, to increase their natural odours and to endow them even with fragrance of which in their natural state they are devoid.

Enclosed in every seed is a portion of electricity, and on this depend, in the first instance, the life of the plant, its form and colour, its leaves and blossoms. If any crack or injury to the seed has allowed the electricity to escape, the growth of the plant is prevented.

When, after some time, the seed having been sown, its electricity has attracted a sufficient quantity of the electricity of the ground, and the two electricities are, as it were, married, their united heat and power force the seed to burst.

Part of the united electricity serves for the leaves, and when its supply is deficient the leaves wither and die, despite every effort to preserve them.

Another part serves to give form and impart colour to the plant. Green is the colour that the earth, in connection with the electricity of light, has the greatest tendency to generate.

In many plants, after the electricity has thrown off its principal strength in the leaves and blossoms, what remains sinks exhausted into the root, there to repose, and, like a child forsaken by its mother, the leaves become sickly and fade. When in due season the electricity again becomes invigorated by repose, and by union with the electricity of the ground, the united essences go forth again to seek the light and busy themselves in the reproduction of foliage and flowers.

The essence of the combined electricity having acquired additional power from the contact with the electricity of light and of the sun, is forced to the extremities and joints of the stem, where the forms of the flower are permanently developed and preserved.

The electricity concentrated or, rather, coagulated at the joints and extremities of the plant there forms hard gatherings, which, after being saturated with the electricity of light and of the sun, ripen and burst into flower.

There are, as you know, great resemblances in many of the operations of nature. From observing the mode in which electricity thus coagulates and forms gatherings or tumours in flower-plants, we acquired valuable knowledge, including the secret of the formation of gatherings or tumours of all kinds in the human body.

The sap of the plant is the repository or reservoir of the united electricities, from which every part of the flower is to be nourished.

PROCESS FOR CHANGING FORM.

This is an outline of our process when we would change the form of flowers:

A slip from a plant, according to the kind of flower desired, is placed in a flower-pot filled with mould, the bottom of which can be unscrewed and removed at pleasure.

As soon as the slip has taken root, and the smallest fibres have sprung from the stem of the plant, the form of the desired flower is made out of a piece of ravine metal as thin as a piece of silk.

This metal-flower, after immersion in a solution which attracts the particular electricity to be used, is enclosed in a hollow block of the same metal, corresponding to the flower form, from which it rises in a shape somewhat like that of a funnel, till it ends in a very fine point or orifice as fine and as hollow as the finest hair. This point is inserted in the root of the plant.

Underneath the metal-flower form is placed a bag of sympathetic electricity, and the mouth of the bag is so arranged as to fit closely round the form of the metal-flower in such a way that the electricity has no escape but into the hollow metal block and through its fine, hollow point. The metal point, previously to its insertion in the root of the plant, is prepared with a solution to prevent the escape of any of the electricity through its pores.

As soon as the bag is opened the electricity is attracted into the metal form, and having no other escape, proceeds instantaneously through the funnel and through the hair-tube into the plant. In doing this, it retains the form implanted by its contact with the metal model, and by the forced passage through which it has become married with another electricity.

As soon as it is attracted by the solution with which the inside of the metal is covered, a shock is produced which materially assists the operation, by causing the electricity to imprint itself with greater force and certainty on the embryo plant with which you will recollect the hair-point has been connected.

It is essential that the charge should be sufficiently strong to modify or overpower the electricity already existing in the plant, in order to change the form which this would otherwise take; but, at the same time, care is taken that the charge is not too powerful, for in that case, and particularly if an antipathetic electricity be employed, the flower would be instantly killed. The electricity is therefore applied in gentle proportions at first, and then the operation is repeated several times.

PRODUCTION OF COLOUR.

It is electricity that, as I have said, gives colour to plants. Their varied tints depend on the sympathy or attraction of their electricity to sun and light electricities. Particular parts of the plant, from the nature of their fibre, have the power to attract larger portions than others of the colouring electricities.

When it is wished to produce different colours in the flower other electricities are used, with or without those producing variety of form. The electricities for producing colours are contained in small pouches, as many in number as the colours we desire to produce. Then, being placed together at the base of the flower-pot, each on the particular part of the "flower form" which is to be affected, their orifices are opened and the contents of each one are instantaneously emitted.

Most plants are susceptible of every variety of colour; thus are produced roses, pink, blue, green, lilac, brown, fire-colour, and sun-colour, which last is a colour so brilliant that the eye that has long gazed upon it stands in need of repose.

Amongst the electricities for giving colours is sun electricity, received in different ways. Again, the electricities of some birds give lovely colours; and so does that of the gold-fish. Moss gives a colour resembling fire-sparks. Frogs produce a beautiful violet.

Where the flowers and leaves have not a decided perfume of their own, we can give a beautiful fragrance to either, though not to both on the same plant. To produce this result, we inoculate the plant with certain

fragrant gases. Our dahlias, unlike yours, yield a highly fragrant and delightful perfume.

* * * * *

The plants treated by us in these ways are fitly called flowers, presenting as they do a mass of blossoms and exhaling delicious perfumes. They act, mediately or immediately, on the concentrated light of the organization through the nerves of smell, as beautiful sounds through the medium of the ear, or as beautifully harmonised colours through the eye. You will recollect that a modification of concentrated light is supposed to be the link through which the soul communicates its impressions to the brain, on whose divisions it is made to act in electric forms.

Besides an infinite variety of flowers, we produce every variety of colour and perfume in the leaves of the evergreens which adorn our streets and habitations, emitting healthy and refreshing fragrance, increased by every movement of the wind.

* * * * *

CREATION OF FORMS.

Not wholly unconnected with this subject is the creation of electric forms for amusement at a distance from the operator. This is effected by the aid of tubes made from the membranes covering the eyes of birds, which are invisible to the naked eye even when at a short distance from the observer.

In the mouth of one of these tubes, which spreads out slightly, is placed a small form made of grains of powder obtained from the coloured seeds of flowers, and, a bag of electricity being applied, the fluid rushes through the tube. Instantly, at the other end, appears the figure or form traced at the mouth, but of ordinary or gigantic stature, proportioned to the power or quantity of electricity employed.

The forms can be varied or changed at will, and have so life-like an appearance that I have seen persons go up to the supposed gentlemen or ladies and speak to them, and only discover that they were shadows when they have come up close to them, or when the operator has at will made them vanish.

I should tell you how our attention was first called to the subject of reproducing forms by electricity.

We had observed numberless instances in which copies of forms were reproduced by electricity, as in the case of pictures in water, reflections in mirrors, mirages, apparitions, and pictures in the air; and had noticed that lightning would frequently imprint, on substances like trees, pictures of surrounding objects. These appearances have, I believe, been observed even in your world.

SUN-FORCING.

There is a highly beautiful flower called Luania, a name of which the approximate translation is the *soiree* or "assembly" flower. Its colours are most brilliant, but its blossom only lasts about ten hours. When that short term has expired, the leaves fall, and nothing remains but a small pod, containing seeds.

In the following year, but not before, the flower blossoms again, and falls in like manner.

The seeds of the Luania do not mature for three years,—that is to say, until after the flower has blossomed three times; but we have, however, the means of producing flowers from the seeds in three days.

The seeds are placed in handsome vases, which contain fine sand and some new goat's-milk, and are covered over with perforated zinc, taken from the great ravine, the metal having been previously prepared to attract the rays of the sun.

The vase, with the metal thus prepared, is exposed to the light of the sun, between the hours of seven and eight in the morning.

The power of the prepared metal is great, and so strongly attracts and retains heat, that it renders the surrounding atmosphere quite cold.

One hour in the sun is sufficient to bring leaves from the Luania. The metal covering is then removed, and the vases are placed under a forcing-glass, the power of which is doubled on the second day, and further increased on the third. The flowers then appear at once clad in all their brilliancy and beauty.

The forced flowers, like the natural blossoms, which they excel in beauty, live ten hours only, but they so far differ from them that their pods do not contain seeds.

The colours of the flowers are bright pink, golden, lilac, lilac striped with white, and a beautiful green striped with white gold. The leaves of this, instead of being green like the others, are of a coral colour mixed with purple blue.

The perfume of these flowers surpasses every other fragrance; it is most refreshing, and a lady will have no other for a *reunion* when she can obtain this flower.

XXVI.

SONG OF ADMIRATION.

"The beautiful is an attribute of heavenly perfection.

> "Give vent to your emotions in words, in flowers, in music, and above all in good and noble acts."

The enthusiastic admiration of the lover has modes of expression besides the graceful presentation of flowers, and the soul-stirring breathings of the harp.

The following, to which I have added the explanation of certain terms, conveys as nearly as may be the meaning of some verses addressed by a lover to the object of his admiration. Many of the expressions will probably be thought hyperbolical. You will, however, remember that our pulsation is more rapid than yours.

* * * * *

Like Lertees[1] at sunrise, opening into life, are thine eyes;

Sparkling and darting like Zacostees[2] the most rare.

Their light overpowers as the air before a storm, when Raskutshi spreads his wings across the temples of his people.[3]

Soft as the Kamouska[4] thine eyes penetrate and search the soul with ingenuity exercised by Orestee[5] to find a treasure.

Sweet as the milk of the Meleeta[6] is thy breath.

Thy breasts are like the electricity of Turvee.[7]

Thy laugh is like the shooting of the stars,[8] silvery and wondrously charming.

Dangerous art thou, for thou allurest mankind from every pursuit, and, like to the electricity of the whale,[9] dost thou draw us far and near.

Then as the Martolooti[10] dost thou fascinate us to the spot.

Graceful as the Castrenka[11] move thine arms.

More playful than the Chilarti when it smiles,[12] and more luscious than the juice of the Tootmanyoso's fruit[13] is the balm of thy lips.

The charms thou displayest are like the perfume emitted by the everlasting gulf;[14]

Durable in their attraction as the Yurdzin-nod.[15]

As surely dost thou penetrate the heart as the venom of the serpent permeates the blood.

Precious as the fat on the serpent's head[16] is the marrow of thy bones.

Firm as the Mestua Mountain[17] is thy will.

In thy goodness thy maker must rejoice.

Thy constant love doth make me live many lives in one; a day seemeth a year, and a year but a day.

Rise, wet thy feet,[18] and onward let us go to Stainer's fount.[19]

There to calm our thirst before singing to our Maker's praise.

And even as that sweet source ever flows,

So may our lives flow to the end of time, as constant and as bright.

Then come to my arms, and twine thyself about me, and I will support thee with strength and power, as the Mountain Supporter[20] sustains the air-suspended cities of Montalluyah.

* * * * *

EXPLANATION OF CERTAIN TERMS USED IN THE PRECEDING SONG OF ADMIRATION.

1. Lertees.—A lovely mountain spangled with transparent stones, which is so resplendent at sunrise that none can look at it without putting gauze before the eyes. Many of the stones were used to ornament the Mountain Supporter.

2. Zacostees.—Precious stones found near the tomb of a celebrated and beautiful woman, named Zacosta, whose loveliness, goodness, and varied talents, created for her many bitter enemies, and exposed her to cruel persecutions. She died heart-broken, and her tears are said to have been petrified into these precious stones called Zacostees which are greatly prized as ornaments for turbans and for ladies' bosoms.

Though reviled and persecuted, Zacosta suffered without a murmur, and rose superior to oft-renewed temptations, and to the bitter taunts of the many incarnate evil spirits who called her an idiot simply because, lovely and accomplished as she was, she patiently bore privations and sufferings when many were ready to pour riches into her lap. To the last she resisted the tempter, however fascinating the form he took, and never lost faith to the day when she calmly closed a life in which she had so greatly suffered.

The legend adds that Zacosta was wafted by angels to one of the celestial stars, there to dwell in love, peace, and joy, and that she daily prays for the alleviation of the sufferings of her persecutors, doomed to pass through bitter ordeals, so pure and magnanimous is her spirit.

It should be added, that according to the prevalent belief, the higher order of spirits, those of the truly good, blessed in their own celestial spheres with every joy, occupy themselves by seeking to benefit others in the nether worlds. Their prayers are necessarily unselfish, unless we regard as selfish the joys, to them great indeed, which result from the delight of doing good.

One of the leading principles of the system which I gave to Montalluyah, namely, the promotion of those possessing superior talents, goodness and industry, was intended to imitate the mode in which, according to our belief, the spirits of the good are elevated to superior ranks of spheres according to the manner in which they pass through their several progressive states.

In Montalluyah slander is regarded with horror. A person of either sex who slandered a woman, and even one who gave credence to a slander without careful investigation, would be severely punished and condemned to wear "the dress of shame," on which would be exposed the nature of the offence, and the base motives of the traducer.

In the cases of slander that occurred at the beginning of my reign the offence was generally traced to envy, to the inferiority of the slanderers to the standard of their victims whom they sought to reduce to their own level, rarely to a desire for good.

Our horror of slanderers had been increased by the persecutions which numbers of virtuous persons like Zacosta had suffered from the malevolent; the very anxiety of the innocent to repel accusations having formerly been looked upon by our hot-blooded people as evidence of guilt. Many had preferred to suffer in silence rather than seem to give life and consistency to a charge by their efforts to repel it.

We have a saying in Montalluyah that to attack beauty and goodness is to attack Heaven itself, from whose attributes they are derived.

3. Raskutshi.—Supposed to be the king of the air, and ruler of all the zephyrs and spirits of the region. According to our poetical legends Raskutshi comes near the Earth when angry, and his advent is followed by a terrific storm. The air preceding certain storms in our climate has a peculiar effect in creating a species of torpor. It is then supposed that "Raskutshi spreads his wings over the temples of his people."

4. Kamouska.—A loving little animal like a bird, very beautiful and gentle, with an eye of jet black, and of great brilliancy, but softened when the little thing wishes to be petted. She likes much the electricity of the mouth, and puts up her face as though wishing to be kissed, at the same time emitting a beautiful musical sound. Her body is covered with the softest down, finer than that of the ostrich or the marabout. The feathers are of the richest gold and crimson, mingled with grey, her breast of the richest crimson conceivable. The top of her head is gold, the rest of her body greyish white, her beak pale pink, her tail of green and gold, intermingled with touches of greyish-white and red. She feeds on the blossoms of a flower growing amongst a peculiar grass, and on all kinds of fruit. She does not drink, but is satisfied with juices from the rich fruits which we have all the year round. Kamouska, I should say, is the name of the female bird, who alone is petted, the male being vicious and without feathers. Frequent reference is made to her by our poets.

5. Orestee.—The name of a man who invented an ingenious instrument for discovering diamonds in the bowels of the earth, and for penetrating to the spot where they lay.

This instrument possesses an electricity sympathetic to diamonds only. The presence of them is indicated by an exceedingly sensitive arm of the instrument which being retained on the spot indicated, puts forth tendrils that gradually perforate the earth, and do not stop until a precious stone is reached.

6. Meleeta.—A pet animal of most peculiar formation. Its body resembles that of a beast, and is covered with hair of a light hue, interspersed with dark chestnut spots. Its belly is white, as likewise are the feathers of its bird-like wings and tail, though these are varied with touches of crimson,

blue, and gold. Its eyes are large, and of a jet black, its neck is long and graceful like that of a swan, its back is short and sleek, and its legs and feet, which are armed with claws, are small, graceful, and mobile. But its most remarkable peculiarity is the resemblance of its face to that of man. The males, which have horns like polished white ivory, are not petted.

The female yields a delicious milk, sweet and refreshing to the smell as to the taste, and with peculiar qualities when taken fresh from the animal. Meleetas are brought into the room during the early morning or "fruit-meal" repast, and each answers to her name, and stands still to be milked.

I had one much attached to me, who would come of her own accord, flutter her wings, and crouch at the top of my chair. The attendant was obliged to milk the animal close to my chair, and the affectionate little thing would watch the man until he handed me the milk, as though she feared he might give it to one of the guests. Infants are suckled by these tame animals.

At the beginning of my reign the animals were very rare, and indeed nearly extinct, their only food being the nut of a tree then extremely scarce, for before the discovery of the application of electricity the tree had been burnt for use. By my order large tracts were planted with these trees, and there are now large enclosures in which herds of Meleetas are preserved.

The young are very precocious, and can soon be fed on nuts, and consequently taken from the mother, who remains in milk for a long time—nearly a year and a half.

Great interest is taken in the Meleetas, and they are treated with much gentleness, each having a small house to itself, lined with soft down, and furnished with a perch.

They are very intelligent and grateful, and I well recollect the astonishment of my favourite when she laid her first egg. She would take hold of my robe and pull me, that I might look at the novel production,

and she would make all the time a pretty noise like a laugh, seeming to be astonished and overjoyed.

I sometimes wore long flowing robes, and was often accompanied by this little creature when I strolled through my grounds. If it was at all damp she would hold up the hem of my garment with her mouth, that it might not get wet. When with me in my study, she would crouch down and remain quiet at my bidding.

The Meleetas resent ill-treatment, though not spitefully. They can only raise themselves a small distance from the ground, but I have seen one when offended flutter, fly up quickly, and descend, giving the offender a smart box on the ear with her wing.

7. Turvee.—An insect whose electricity forcibly attracts and subdues the power of man.

8. Shooting stars are, in our legends, said to be companies of good angels, linked in brightness and despatched from one star to another, on messages of love and peace, sometimes to protect an inferior world from the too great inroads of legions of evil spirits.

9. Whale electricity.—Of all, the most powerfully attractive.

10. The Martolooti.—A basilisk, or serpent, possessing wondrous fascinating power over its prey.

11. Castrenka, or Flower of Grace.—A plant with two branches only, which spontaneously or at the slightest breath move always together in a most graceful manner.

12. Chilarti.—A little pet animal, always playful and smiling.

13. The Tootmanyoso's fruit.—That is to say the Allmanyuka— the fruit invented by me, of which hereafter.

14. The perfume of the everlasting gulf.—A gulf the waters of which emitted a delicious fragrance, and when taken from the gulf would not keep together, but separated into drops like tears.

In our legends it is supposed that a lovely woman had for some grave sin been turned into a gulf, and that her breathings were continually wafted towards Heaven in prayer.

15. The Yurdzin-nod.—The hide of the hippopotamus, which is of extraordinary durability, and when prepared for use may be said to be imperishable.

16. The fat of the serpent's head is very precious, and is used for many important purposes. Prepared in a certain way it is even supposed to strengthen the intellect.

The "mind-tamers" attending madmen—who were numerous when I began to reign—carried with them this fat, and sometimes the head itself, as an antidote against the contagion of insanity.

17. The Mestua Mountain.—The largest in Montalluyah, supposed to be the firmest and most lasting of mountains. By her firmness the sea's mighty inroads have been arrested in their progress, and the waters have been driven back. The "will," which is likened in firmness to the mountain, is "the will to overcome evil."

18. Wet thy feet.—This ablution is required before prayer.

19. Stainer's fount.—Stainer was a good man, who was never known to harm or pain any one by action or word, and from whom, as he drank of its waters daily, the spring derived its name. The water, wholesome and cooling, is said to be the purest in Montalluyah.

Water, a thing of hourly use, and moreover supposed to enter largely into man's organization, is in Montalluyah treated as of the utmost importance to health, and its quality is watched with great care. The water for the especial use of the city is collected in reservoirs, and is always examined before the people are allowed to make use of it. If certain electricities are wanting, though it might be faultless in other respects, both the supplies, within and without, are stopped until means

have been taken to infuse the deficient electricity. The water from Stainer's fount never required testing. This was always pure, never changed its component parts, and never ceased to flow.

20. The Mountain Supporter.—Reference to this great work is made in nearly all our poems, which invariably refer to the beauty, splendour, strength, firmness, durability, grandeur, and usefulness of the work, and to its resemblance to my polity.

XXVII.

SYLIFA.

> "Here the soul has illumined its temporary dwelling with rays of light—the gift of Heaven."

Among the children of poor parents taken care of and educated by my orders, there was a beautiful girl named Sylifa, the daughter of a labouring man who worked in the ravines.

In the early part of my reign I had been struck with her beauty and intelligence, and directed that she should be brought up and educated in my palace.

Her eyes were almond-shaped, large, long, lustrous, and languishing; and might be pictured by fancy as beaming with ethereal flowers, crystalline fountains in all their brightness, painting, sculpture, and poetry.

Her lovely mouth never gave utterance to a thought that was not kind and good; indeed, all her features were beautiful, and the soft and luxuriant hair hung down to her feet in graceful curls—the back hair was much longer, and, when unbound, fell to the ground in rich masses.

She had a musical, merry laugh, which, whether they would or not, could set all present laughing, however seriously inclined.

Her talents were many, her versatility was great; for she was accomplished in various pursuits, and in most of them excelled. When singing or playing the harp, her dreamy eyes were more than earthly, and seemed as though beaming with poetry inspired of Heaven.

The beauty of her mind could be read in her face; she looked so heavenly, that when grown into womanhood I have, in a moment of enthusiasm, been almost tempted to fold her in my arms; but I never forgot my great mission, even in the most perilous moments.

I took particular care of the lovely girl, and selected for her husband a very handsome man and a great poet, who was chosen in due form by Sylifa at one of our marriage "choice" meetings.

The union was happy, though, perhaps, they loved each other too well.

The married couple resided in my palace, and Sylifa continued to afford to me and my guests the greatest recreation and amusement.

She was very luxurious, and very particular in her habits. I have seen her, while amusing us, suddenly (perhaps designedly), stop short, and direct her attendant to bring the golden salver, telling us at the same time that her hand (and she had exquisite hands) was a little soiled. She would moisten them with the perfumed water, and then resume her task of amusing us; our attention having, in the meantime, been kept in breathless suspense.

In my palace under the sea (for I had a submarine retreat, of which I may speak hereafter) there was a large sheet or basin of water, in which she would sport most gracefully, modestly attired, as a nymph of the sea.

She always identified herself with the part she sustained. As a sea nymph, she could never be induced to speak; but, when we addressed her, she always replied in musical tones, because, according to our legends, mermaids always discoursed in song.

In the basin of water there were willows, hung with small lyres, through which Sylifa would show her face, and then, taking one of the lyres, would play and sing exquisitely, always keeping up the illusion.

She was very fond of a lion brought up in my palace, with which, as a cub, she had played when a child. As a woman, she had complete mastery over the noble animal. Both as a child and as a woman, she, with the lion, formed the subject of many of the beautiful pictures that adorned my palaces.

For a particular reason, we once separated Sylifa from her husband for a day. She refused to eat; neither would she retire to rest. As the day was ending she walked into the room where I sat with my numerous guests.

She said, "Do you love Sylifa?" "Yes," was my answer. "Then give me back my Oma. Without him I die; already I droop; to-morrow I shall be no more."

When asked to amuse us, she said she could not; her heart was too heavy. We tried to console her, but it was useless; she wept, and her long hair was wet with her tears.

After two days, we were obliged to restore Oma to the devoted Sylifa.

Sylifa was enthusiastic in her love of flowers. It was she who suggested that, at the *fete* of which I have spoken, the camelopards should be united by wreaths of flowers. She sought and obtained my permission to mount the tallest of the stately animals, and appeared, resplendent in beauty, amongst the beautiful women who graced the *fete*.

XXVIII.

THE YOUNG GIRL RESTORED.

MADNESS.

"A sleep of sorrow."

Formerly, as before observed, many were pronounced mad who were perfectly sane, but madness itself was scarcely ever recognised until by violent actions or incoherent words the patient had excited fear in others. Numbers, afflicted with incipient madness, might have been easily cured had its presence been detected; but they were allowed to inflict great injury upon their neighbours. This they did the more effectually as their madness was not even suspected until the symptoms of the malady became too glaring to be disregarded.

I will relate to you a case which presented some remarkable features. A little girl about four years old fell down some stone steps, and received a violent blow across the nose, which swelled enormously. She probably was otherwise injured, but the injury on the nose was the only one then observed. After some time the effects of the accident were to all appearance completely cured.

As the girl grew in years, she gave signs of marvellous talent. But apparently unable to apply herself to any particular pursuit, she became wearied of one thing after another, and continually thirsted for novelty.

This incessant love of change extended to everything, to friendship, love, dress, amusements; to the most serious and most trifling matters. She was happy and melancholy at intervals, and always in excess; nay, in her fits of extreme despondency she would even meditate suicide.

Though disliked by some for her wayward and capricious disposition, she was a great favourite with others. I should add that she was extremely beautiful, indeed lovely, very witty, highly gifted, and withal so fascinating that she never failed to charm every one at the first interview, the novelty of the excitement, and a natural desire to please giving impulse to her will. Although possessing so many gifts, she was very jealous and envious of others.

Many were the offers of marriage which she accepted in succession, abandoning one suitor after the other without any adequate reason or any feeling of compunction. At length she unexpectedly accepted a man of whom she had scarcely any previous knowledge.

The marriage, made at her request in a headstrong fit of impatience, took place a few days after the proposal had been made. A child was born, but long before its birth she had become tired of her husband. The child she loved passionately at first, but soon became weary even of this object of her tenderest affection, and looked upon it with indifference! All these events had taken place during the reign of my predecessor. Under my laws such a marriage would have been impossible.

At the age of twenty-six a frightful accident happened to this lady—she fell into a vat of scalding liquor—a beverage prepared with honey. We have a very effective remedy for scalds, and, though severely burnt, she was eventually cured, but the fright had sadly shocked her nerves; a violent fever seized the blood, she fell into a trance, her eyes were fixed and glassy, and she gave no signs of movement except by swallowing the little nourishment that was offered her in a liquid form.

This trance lasted some days. On awakening, the patient asked with the tone and manner of a child, how old she was? She was extremely calm, and a remarkable change had come over her. On the doctor's asking why

she inquired about her age, she replied that during her sleep she had been in what seemed a long, sad, and changeful dream! She then related some details of the injury she received when at four years old she fell down the stone steps. Those around her at first thought that her mind was wandering, but this notion was soon dispelled. She spoke of incidents of her life extending over many years, as though they passed in a dream; one incident of this dream being that she had given birth to a child, and suffered acute pain. At one moment she saw herself in a family of strangers who were very kind, but she knew them not,—then she saw her family in great grief.

One of the impressions that this seeming sad dream made upon her was, that swarms of insects had followed and enveloped her on all sides, stinging and causing her excruciating suffering, which had extended over a series of years of more than lifelong duration.

Sometimes in moments of despondency she saw the beautiful form of an angel radiant with light, who spoke to her in soothing tones, and entreated her to be patient, assuring her that her sufferings were ordained for a good end, and that by patience and the sweetness of her nature, she would attain the power of casting from her the torments she endured, and that after doing much good during her mortal career she would, when her time came to quit the world, be placed high amongst myriads of angels. She said that whenever urged by despair to relieve herself from her pains by a desperate course, this bright and beautiful angel would stand before her and pour words of consolation and hope into her ear.

In relating the incidents of her supposed dream, her whole manner was so different from the former state of excitement, to which her friends had been accustomed, that all saw she was perfectly rational, although relating as a dream what had occurred during twenty-two years of her actual life. It seemed as though all the time that had elapsed since she was four years of age belonged as it were to another and differently

constituted brain; and that she had now resumed the thread of her life from the time when she was four years old, the period of the first accident.

When the husband and child were brought to her she knew them not, though she had some vague notion of having seen them in her dream. The husband prayed her to return to him: she said she was not his wife, and could not accept him as a husband; that she felt no love for the child, and could not even like it as a playmate. She recollected her parents when they were twenty-two years of age, and could not understand how they could be so much changed.

In all her occupations and amusements she acted as a young child, but she gradually increased in understanding, and in sixteen years after her recovery she became a most accomplished person, without, however, possessing the varied talent of former times. She lived seventy-two years after the trance (in all ninety-eight years) now a short life with us; but never, till the day of her death, could she understand that she had lived during the twenty-two years which filled up the space between the first and second accidents. Strange to say, during that interval, no one had suspected that her brain was affected. Nearly the whole period had elapsed before the commencement of my rule, or the evil would have been detected and remedied, not by confining the patient and driving her into madness, but by gentle means.

The medical officers had no doubt of her complete re-establishment: besides, shortly after her return to calmness they applied the tests recently discovered, and the result furnished conclusive evidence that the malady had been eradicated. On an examination after death there was indeed, as the doctors thought, an unhealthy absence of certain microscopic animalcula, the effects of whose continued presence in excess in one portion of the brain to the detriment of others, lead to madness. The substance of the brain was poor and watery, and it seemed as though at other times there had been more brain than was then found; the lining of the brain was coated with a substance in outward appearance not unlike the fur which sometimes accumulates on the

tongue in a fever. The doctors had reason to believe that this fur was composed of the remains of the insects which, probably, had been killed at the time of the second accident, either by the shock or the fumes of the boiling liquid, and it was to this accidental circumstance that they were inclined to attribute the recovery of those parts of the brain which had remained, as it were, slumbering since the first accident.

XXIX.

THE LITTLE GOATHERD.

> "The flower is hidden until the electricities of the sun and light draw it forth into life and beauty."

In speaking of the "choice of a husband," I referred to the only case I recollected where the lady's hesitation rendered a third meeting necessary. The exception was interesting.

Early in my reign, whilst one day walking near the sea-shore, I was struck by the appearance of a little girl who was attending a flock of goats. A kid had fallen over a rock into the sea. The child was a lovely creature, with a beautiful complexion, handsome and expressive eyes, small hands and feet, and silken hair flowing over her shoulders. Her beauty was heightened by the expression of tenderness and grief at the loss of the kid. I was greatly interested, and watched her movements unperceived. She showed great intelligence and presence of mind.

Near the sea grows a peculiar kind of stringy reed, very strong and pliable. She tied several of these reeds together, made a noose at one end, and with the other end tied herself to a rock near the edge of the precipice, that she might not overbalance herself, and be dragged down in her endeavours to recover her kid. She then threw down the noose at the other end of the line, and after one or two attempts succeeded with great dexterity in getting it round the body of the kid, which she gradually hauled up to the rock where she stood. Her movements were

most graceful, and her address and dexterity truly astonishing. As soon as her success was complete she fondled and embraced the kid as though it had been a favourite sister whom she had saved.

In straining over the precipice she had drawn the knot that secured her to the rock so tight that she could not liberate herself until I came to her assistance and set her free. I then talked with her, and found that she had remarkable capacity, tenderness, and sweetness of nature, but was altogether uninstructed. I said to myself, it is impossible that a creature could be found so beautiful and intelligent unless Providence had intended her for something better than her present occupation.

By my orders she was thoroughly educated and cared for. She showed great aptitude for her appointed studies, and having passed one ordeal after another with great honour, she was ultimately, thanks to our institutions, deemed worthy of a superior rank, and became one of our great ladies. In mind, form, and feature, she was a remarkable person, and her manners were most sweet and fascinating. She was a frequent guest at my palace. I delighted in her discourse on the rare occasions when my occupations gave me the opportunity of conversation.

Gratitude to her benefactor had given rise to a deep affection. Observing this I told her that the peculiarity of my position, and the necessity for completing my great work, had decided me not to marry, and that the affection of a friend was all that I could give her. Marry, I said, and I will always watch over you. Had I married, she would have been my choice. In obedience to my wishes, she allowed the "marriage choice meeting" to be called. She was so beautiful and engaging that the number of competitors was far beyond that required to complete the meeting. The suitors selected were the most promising young men in the city, and held the highest positions, but all the three several marriage meetings remained without result, except to confirm her resolution not to marry.

By our laws every woman, however high in rank, who elects to remain single, is obliged to follow a calling adapted to her capacity and inclination. This interesting person possessed a peculiar talent for inventing and improving ciphers for telegraphic correspondence. This

talent was turned to account. She was also entrusted with the superintendence and examination of the reports made by those charged with the instruction of the clerks engaged in the telegraph department, and proved superior in every important quality to any of the men occupied in similar pursuits.

XXX.

DECORATIONS FOR AGE AND MERIT.

> "...The gate of future success, honours, and riches is always open to you."

The ornaments, of which I have before spoken, are independent of decorations worn by women as distinctive marks of age; for the age of a woman entitles her to peculiar privileges above others younger than herself, and her decorations are so worn, that these privileges may be at once recognised. At the end of every five of our years, she is entitled to a decoration indicative of her age, and the mode in which the last five years have been passed. Strange as it may appear to you, with whom old age is associated with feebleness, loss of beauty, and decayed powers—it is by our ladies looked upon as a privilege, of which all are very jealous. If such a thing were possible, it would be a gross insult to say that a lady was younger than was indicated by the last decoration which she had received; and even the five successive years are marked by five small appendages, one of which is added each year, so that she may not lose even one of the years to which she is entitled.

Amongst other marks of respect shown to age—a younger woman, passing her senior in years, is expected to give her the inner side of the path, and to salute her in passing.

No mistake can be made as to the particular nature of the decoration, and consequently of the number of years to which the lady is entitled. Each of the numerous decorations differs entirely from the others. A decoration called the "Matterode," consists of the model of a very beautiful bird, that has the peculiarity of always looking upwards, as though its thoughts were borne to the celestial stars. The wings of this bird,—from which the Order derives its name,—are fixed in a peculiar way, and move in graceful motion, so as to suggest the movement of an angel's wings.

The plumage of the Matterode is as though it were studded with precious stones; so bright are the dots all over the body and the wings.

The decoration is of exquisite workmanship, and made of our choicest metals, varied in colour, and set with precious stones, to imitate the bird's plumage.

This decoration is presented to a lady who, having by her conduct and years earned successive decorations, has passed the last five years unexceptionally and uprightly in all things, and has, besides, shown intelligence of a high grade.

If, during the five years succeeding that in which she won the "Matterode," this lady remains unaltered in greatness and goodness, she is entitled, in addition, to a decoration of considerable value, in which the "Mountain Supporter"—which gives its name to the Order, is faithfully copied in the purest and most beautiful metals. And as the "Matterode" is an intimation that the beauty of the wearer's actions justifies her in looking upwards to a future home in the celestial stars, so does the Mountain Supporter indicate her firmness, power, and strength, that nothing in Montalluyah can surpass.

When either of these decorations is worn, the greatest honour and respect are paid to the wearer. All know that none can possess it without having gained it by sterling merit and goodness of the highest order. The

checks used in our system are of such a nature, that no favouritism, no accident—nothing but the wearer's years and conduct— can obtain this, or indeed any other Order.

If the conduct of the woman during the five years she wears the Matterode had been marked by any deviation from goodness, an occurrence scarcely heard of, a qualified decoration would be presented to her, which, though beautiful, and indicating the age and position beyond doubt, would give evidence that a little cloud had sometime during the past period, affected the vivid colours of the illumined sky! There are various ways of modifying the Order so as to show the estimate of conduct, all differing according to the degree of the offence. But if the wearer's conduct during the five years of the qualified term is unexceptionable, the decoration for the subsequent five years would be the same as though nothing had occurred in the meantime to interrupt the lady's title to the highest decoration.

Again, if any person, even one who had gained the Matterode, were to commit something—a decidedly wrongful act—the decoration, during the following five years, would perhaps consist of a Foot trampling on a hippopotamus or on a serpent, thus indicating the necessity for bearing down sin, which is symbolised by both of these creatures.

You will at once see how easily the two first decorations I have named are distinguishable from each other, and how the last is distinguishable from both; and so it is with all the others, too numerous to mention here.

However, by their education, and the laws and customs I introduced, Woman possesses so high a sentiment of honour, and so much becoming pride, that the instances of degradation from the two first orders has been remarkably rare—scarcely worth referring to except to show that we never hesitate to put the laws in force against the highest personages, even in those cases where, under another system, our sympathies might have led us, perhaps unconsciously, to screen the offenders. In my laws on this subject, it is declared, that whilst mercy and goodness are on one side, might and justice are no less on the other side of the celestial throne.

What I have said of these orders is applicable in a great degree to all the others.

In our world all particulars of conduct and goodness, as well as deviations from them, are known; nothing on these heads is, or indeed can be concealed. I am now speaking of an advanced period of my reign; for at first, and in what I may call the intermediate or transition period, it was otherwise. Then there were many laws and precepts established which are now all but obsolete,—for since, the occasion for appealing to them scarcely arises. As an example, the love and practice of truth are amongst the very first things inculcated in the child, and are now everywhere and by all classes practised in Montalluyah. Laws, then, which suppose the possibility of a deviation from truth are scarcely ever appealed to—such as, for instance, the precept, "Ask not your neighbour what you know he wishes to conceal, lest he lie," and the accompanying law preventing one person from annoying another with improper questions, and thus probably drawing forth untruths. These, like the laws and precepts enjoining all to industry, and many others, belong to a bygone age, and to another state of things, and were only needed in the intermediate epoch, just as particular remedies were then required to cure the diseases of those who, having been born before my reign, had in their childhood and youth been weakened by disease, or had received into their systems the germs of future intense suffering, which, had the child been born later, would have been completely eradicated in their incipiency. But as these maladies existed in the intermediate epoch in their virulence, we were for a time obliged to continue the principle formerly adopted,—that of expelling one poison by administering another.

The fact that everything belonging to women is now known and adequately recognised and rewarded makes them contented and happy. Under the system existing before my reign this was not so,—the most beautiful were often the most discontented; they were more easily acted upon by evil spirits, who assumed the fairest and most seductive appearances to lure their victims; they were often the most susceptible to flattery, and easiest led astray; and when once drawn from the proper

path, they were the most cruelly persecuted by a class of inferior persons, who, had their own secret conduct been known to man as it is to a superior order of beings, would never have dared to throw even the smallest stone at their poor persecuted sister, who had, as was often the case, been led astray by the very excess of a virtue which defective education had left unbalanced by its regulating qualities.

Although it was one of the best known precepts of our religion that the fold should always be open to receive the strayed sheep, these piety-professors, with this precept on their lips, took care that the strayed ones should be cruelly worried and scared from the fold.

This, however, is not surprising when it is recollected that those who were themselves most impure were ordinarily the first to vilify and persecute the offending one. From tests, the accuracy of which left no doubt, I learned that this acrimonious bitterness against their suffering sisters was nearly always instigated by a desire to conceal their own defects, to raise themselves, as they thought, by depreciating others, and to lay hypocritical claim to a superior austerity and goodness which was not theirs. The really pure—and for the honour of the past age of Montalluyah, I must say there were some few who were truly good—were those only from whom the sinner received sympathy and encouragement to return to the path which had been for a time forsaken.

Even she who receives a qualified or indifferent age-decoration can, if she pleases, bring her case before the kings, and strict justice is invariably done to all. None rebel in word or spirit, but all invariably use their efforts to recover lost ground before the time arrives for receiving the next decoration. In these laudable efforts they are assisted; all means being used to cure the patient. When, from tests ofttimes repeated, we are satisfied that the penitent's reform is complete, she is received with open arms by the highest of her rank, as though she had been ever spotless; and at any time to remind her of the past, or even to make to another the slightest allusion to what had occurred, would be looked upon as a heinous offence, and punished accordingly. Thus, a qualified order acts at the same time as a censure and a protection.

ADVOCATES.

I ought to mention that there are advocates selected by the State from amongst the most eloquent and able men, charged specially to bring before the proper tribunals every case where any persons, men or women, think themselves wronged. There are also able men, advocates to represent the interests of society. The former, or people's advocate, if he thinks right, advises his client by the gentlest means to desist from her cause; but if his efforts prove ineffectual, which seldom happens if he is right, he is bound to proceed with the case, and if necessary to bring the question before the kings. Did there prove to be any real doubt or serious difficulty, the case would be referred even to me. The advocates of society, like the people's advocates, are disciplined in the practice of truth and justice, and if they think that there is anything in the case in favour of the appellant they are honourably bound to state it to the tribunal. This is done in the interest both of justice and of society itself, which might otherwise be injured in the person of one of its members.

Both classes of advocates occupy very high positions, and would not condescend to take fees of their clients. They are wholly remunerated by the State. They have no interest in the issue, and are equally honoured whatever the result may be, for society always gains by a just decision.

* * * * *

I may here mention a privilege belonging to every woman of every rank and of every age, viz., that, when a man meets a woman in the street, he is expected to bow, and, unless accompanied by a lady, he must step off the principal path till she has passed. Any one omitting either of these marks of respect would be considered vulgar and ill-bred. He would be severely censured, and a repetition of the offence would render him amenable to more decided punishment.

XXXI.

BEAUTY.

HEALTH—LONG LIFE—INFANTS.

"A precious gift from Heaven."

"How rare is beauty!" was formerly a common exclamation in Montalluyah.
It *was* rare indeed; for although children were generally handsome and well formed, the adult too often became misshapen and ill-favoured. Deformity was the rule, beauty the exception.

Even amongst those who were called handsome there were scarcely any who fulfilled every condition of the beautiful. A critical observer would have found defects in the beauty of the features, in the form, in the foot, the leg, the arm, the hand, the fingers, the teeth, the neck, the throat, the head, the hair, the complexion, the contour, the carriage. One, and generally more, of the many essentials constituting the perfection of beauty would be wanting.

Hence, when our great artists required an ideal of beauty in painting or in sculpture, they would take several models, each supplying some beautiful detail not to be found in the rest,—one model furnishing the features, another the general outline, each a separate limb. So difficult, if not impossible, was it then to find perfection of detail in the same person. Nay, even this expedient did not ensure success; the models

differing from each other in size, complexion, and general proportions, complete harmony was rarely obtained, and, judging from our old painting and sculpture, I should say that no ideal was then produced equal to that which in Montalluyah now exists in the living form. Beauty, formerly the exception, now constitutes the rule, the ill favoured and deformed being more rare than were the handsome in preceding reigns.

To beauty is now added longevity; for, as I have before stated, the duration of human life is extended to a period which formerly would have been thought fabulous. This assertion will probably be received by you with an incredulity, which will not be diminished when I add that, notwithstanding the great increase in man's years, all his faculties are preserved in a state scarcely less perfect than that of pristine manhood. The eye is not dimmed, there is no deafness, the limbs are strong and agile, the teeth remain free from decay, pleasing to the sight, and valuable for the chief purposes for which they were given. In a word, whatever can contribute to beauty and health in man and woman remains all but intact to the last. Decadence in any particular, if so it may be called, is scarcely less marked than is the almost imperceptible decline by which man descends, or rather ascends, peacefully to another state of existence.

The facts I state would appear less extraordinary, nay, they would be regarded as the natural and inevitable result of an actual state of things, if you knew all that is done and prevented in Montalluyah to protect the health, strength, beauty, and intelligence of the child from its birth, indeed prior to its birth; for with us the care of the mother precedes that of the child. Nor is our care confined to infancy; it is extended to later years, and does not cease until the limbs, both of male and female youth, are developed, and their joints well knitted; until their features and person have received the impress of beauty, and their intelligence is matured to the healthful extent required by nature.

You should also be conversant with the means that are taken to secure the health of the city, the purity of the water and air, and the wholesomeness of food, the extreme cleanliness, and the general precautions taken for the prevention of disease, and of that prostration

and waste of vital force by which disease is preceded, accompanied, and followed. You should realise, in thought at least, the blessed results of the employment of all in congenial occupations, and the contentment of each with his lot! You should also be able to realise the ever-multiplying inventions and discoveries resulting from our system, all tending to promote human perfectibility and happiness, every successive step being assisted by the one preceding, as well as by innumerable co-operations, all tending to one grand result.

You should also bear in mind that these inventions and their resulting forces had originated with and were governed by none but natures prone to good; powerful men from whose organization early education had eliminated the germs of evil propensities.

You should also realise the advantages arising from the fact, that whilst elevating knowledge, and rendering the rich happy in the possession of their wealth, my laws protect those who formerly would have been called poor. As there is no misery resulting from the neglect of society, or from the selfishness or oppression of man, poverty in your sense of the word does not exist. They, who are qualified for a "poor" grade only, are nevertheless the objects of solicitude and care to so great an extent that, whilst under my system the happiness and enjoyments of the rich are greatly increased, the poor are far happier and have keener enjoyments than the rich of former times, when the acquisition of money or its indifferent expenditure was the dominant thought in the minds of all.

You should also appreciate, in part at least, the effects of the numberless sights of beauty everywhere in Montalluyah, within and without, in the houses and the public thoroughfares, all by their influence on the mother, the child, and the adult contributing towards perfection of form, beauty, intelligence, and length of life.

Amongst other things, one result of the labours of the Character-divers must not be forgotten. The mobile countenances of our people are easily impressed with the marks of their emotions, and formerly nothing was more plainly furrowed on the countenance than signs indicating bad passions and evil propensities, the eradication of which with the

development of good qualities (one of the principal duties of the Character-divers) has had a remarkable effect in adding to loveliness of expression, in improving the features, and even in increasing the elegance and gracefulness of the form and bearing.

Had I been content with a mere ordinary increase of beneficial results, any one or more of the numerous precautions taken would have done much good; but my object was to establish my laws on so broad a foundation that no adverse gale could shake the edifice,—that the laws should be strengthened one by the other, that every one should be interested in observing and supporting institutions under which he enjoyed the largest amount of happiness, and that, strange and visionary as it may seem to you, the necessity for punishment might be diminished, and eventually removed.

I should have as little thought of erecting the tall and graceful but huge Mountain Supporter without a broad and solid foundation as of establishing my laws, all tending as they did to the perfectibility and happiness of the people, without spreading their base in all directions, and taking care that the human instrument through which the soul acts was fortified and prepared to respond to its noble ends.

I had early perceived that to obtain the desired end, every particular must be studied and provided for, so that all elements of enduring success should be united, and all obstructive elements removed. I felt that no effort, care, or thought would be too great if it would only produce the desired results, by securing health, beauty, intelligence, and long life in man, to the utmost extent that nature permitted.

I felt that the boon of long life would greatly lose its value, even if it could have been otherwise obtained, unless man's forces were economized, and the senses and faculties preserved in health and vigour to the last; that without these the happiness of man in every stage, and even his obedience to my laws, and my power to dispense with punishments, would be greatly impaired. For I had observed that the sufferings and

degeneracy of the man would make him discontented, restless, and miserable, notwithstanding the blessings with which Providence had surrounded him.

Discontented men—and discontent and wickedness are not far apart—would have used the new powers for their own wicked purposes, just as formerly they rent the veil that concealed from the uninitiated the secrets of powers in nature; having been admitted under the guise, or rather while in temporary possession of all the great qualities of will, undaunted courage, energy, and perseverance.

Had I not reflected on this danger, I should only have allowed numbers of persons to receive an education which, neglecting the paramount principle of eradicating the faults of men of talent, would have laid them open to the promptings of evil spirits, by whom, perhaps, under the guise of beneficence, they would have been led to use the powers of good for purposes of evil. Our very progress would have given strength to powerful bad men, and my system, in spite of improvements, would have carried within it the cause for its own eventual destruction.

Many beautiful systems had been tried in Montalluyah, but, from inattention to small details, they had perished. The men who used for evil purpose powers given them for good, have unknowingly laboured to their own destruction and that of the highly civilized communities where they dwelt; which have thus been swept from the face of the earth.

They had tasted the fruits of the Tree of Knowledge before they had been thoroughly disciplined in the powers of resistance and of self-denial. Hence the wholesome food was changed to poison; the sweet waters were made bitter; the stream, which in its fullness bore fertility and refreshment, burst its banks, and carried destruction everywhere.

So was it even with the priests of one of our ancient religions, who had the custody of great secrets intended for good. During a time extending over some generations, they practised the virtues they inculcated, and used their power for a beneficial end. They increased their power by their virtue and goodness; but their successors, from whose natures the

minute germs of physical and mental perversity had not been removed, used their increased might for evil purposes, enervating to the governing will, and to the directing powers necessary to guide an irresistible force.

It is known that the results of every act, whether good or evil, will be felt for all time. The result of evil was likened in Montalluyah to a virulent disease, which had its beginning in a minute germ; a good act to an ear of nourishing corn, that goes on propagating till it has supplied nations with food.

It was not enough that my laws worked with the beauty, regularity, and unity of a well-balanced machine, the parts of which assisted each other in attaining the immediate object of its construction. The political and social machine possessed also the faculty of acquiring at every movement increased powers of production.

I had satisfied myself that amongst the numerous precautions to be taken to secure the highest degree of beauty, power, and intelligence in adults, on which so much depended, was the care of the infant, and that this should commence from the earliest period, before the features, form, and organization had received the first approaches of enduring outline, since then all would be in a malleable or plastic state, ready to take any impressions caused by accident or design, whether tending to good or evil, to beauty or deformity.

RIDICULE ATTACHING TO THE SUBJECT OF BABIES.

Before my reign eminent men, statesmen, legislators, and philosophers, scarcely *condescended* to notice such "trifles" as were comprised in the nurture and care of infants. Perhaps in a worldly sense they were right, for those who had attempted to instruct others in these all-pregnant "trifles" had been invariably ridiculed for the interest they took in "babies," and such-like "trivialities," which, in spite of many lessons, the people would not regard as possibly prolific of serious results.

The contempt thus thrown even on eminent men was the more extraordinary, inasmuch as our sages had familiarized the people with the grand truth that the greatest effects are often produced by trifling causes; that out of the little egg came the large eagle of the country, and the huge boa-constrictor; that innumerable mighty operations in nature have their origin in small beginnings; that the narrow rivulet goes on gathering strength till it becomes the Great Cataract; that the minute plague-spot generated the virulent disease; that the acorn produces the oak; that the impaired seed failed to produce goodly fruit; that a small drop of leaven affected a huge mass. Lessons on the fecundity of little things had indeed grown into commonplace household words.

Besides these lessons of the wise, love and respect for children were mingled with the religions feelings of the people; for Elikoia, the founder of our earliest civilization, was a child when he led the people from idolatry to the worship of the living God.

All these considerations, however, were insufficient to shield great men from the contempt thrown on them and on their words, when they had the courage to let it be known that they occupied themselves with things which, to an ordinary observer, seemed beneath notice.

From the first, however, I had been convinced of the importance of the despised "little" things, and looked not so much to the dimensions of the instrument as to the amount of good or evil it was capable of effecting, having learned by experience that the magnitude of results was often in an inverse ratio to the means employed, more especially when applied in due season.

Soon I discovered that many of the maladies incident to children, to youth, and to adults, owed their origin to the neglect and injudicious treatment of the infant. I had seen numbers of interesting children, with handsome features and well-formed limbs, who in their riper years had become ugly, with ill-favoured features, sallow complexions, bad expressions of countenance, misshapen forms, and crooked limbs. Many who in early years had displayed great intelligence had become positively stupid. It was not that the intelligence had been prematurely developed,

but that the organization had been prematurely injured, and the brain-machine rendered incapable of giving proper expression to the yearnings of the soul. None suffered more keenly from early physical neglect than children of genius.

Satisfied that my observations were accurate, and that everything contributing to husband the health, strength, beauty, and intelligence of the child, would likewise contribute to the beauty, happiness, and contentment of the adult, as well as his obedience to my laws, I resolved to occupy myself with what proved to be the very important subject of babies. In meditating on the mode of obtaining the desired results, I considered nothing too insignificant,—not even so "small" a thing as the scratch of a pin, sufficient at all events to make an infant cry. The acts of crying and making wry faces disturb the lines of the plastic clay of the child's countenance, and even the lines of the form. The state of suffering calls off the vital electricity from its duties in other parts of the organisation, and is attended with other inconveniences, slight indeed in immediate perceptible effects, but so powerful in their cumulative and germinating effects as to lead to results which, were they related, would seem incredible.

I must content myself by saying, that although the march of these cumulative effects is not one-tenth as visible as the almost imperceptible movement of the hand that marks the seconds in one of our smallest electrical watches, they nevertheless eventually show in their result great and increasing evils, seriously affecting the child, the youth, the adult, and the man. It would not be too much to say that the traces of an injury, however slight, are never altogether obliterated, whilst every successive injury and deprivation of force renders the sufferer more open to every new inroad.

Although the minute hand of our electric watches moves almost imperceptibly, marking minutes, hours, days, and years, it advances in measured, limited progression; whereas the effects of suffering on the child go on advancing in an increasing—nay, multiplying—ratio, by which, up to a certain point, that of geometrical progression is far exceeded. If you can realise the fact, which in Montalluyah is

incontestable, that even a scratch, however slight, will injure a child, it will require little stretch of imagination to form some conception at least of the injury caused to the beauty, form, health, strength, and mind of the adult, by the many diseases and sufferings which were allowed to leave their imprints on the young, impressionable clay and delicate organisation of the infant. Our children were formerly afflicted, like yours, with diseases resembling whooping-cough, croup, measles, small-pox, and other maladies, forming an almost endless list, and although the child survived the attacks and the incidental suffering and waste, the evil consequences could never be effectually removed.

The precautions now taken are very numerous. Many by themselves alone would be productive of great good, but when all are carried out, some contemporaneously, others successively, a result is scarcely less certain than the solution of a mathematical problem, based on accurate premises, save of course in the case of inevitable accidents. My laws provide for the protection of the child from its birth, nay, as I have before stated, prior to its birth; for the protection of the parent precedes that of the child. I knew that if the mother was sickly, or indulged in injurious habits, the child would suffer. I enjoined attention to these laws as a portion of the religious duties of the people. Amongst other things I explained the value of beauty in the human form, and how, when united with other qualities, it tended to the happiness of the individual and the well-being of the world. This I did at length, and in a manner to secure conviction, because it had been the fashion to decry beauty as a matter of minor importance.

At the risk of repeating myself, I assert that I omitted nothing, however seemingly insignificant, looking as I did upon my system as upon one large continuous volume, in which every page had its value. The absence of a single leaf would somewhat mar the general effect, but still the remaining pages might retain their worth if pregnant with good. On the other hand, if every leaf that was torn out had the effect of loosening the rest, and causing them to be lost, till but a few would be left in the cover, the effect would be far more serious.

XXXII.

INFANTS' EXERCISE-MACHINES.

"Does a man throw his precious pearls and diamonds into the sea?"

> "Why, then, do ye cast the priceless health and beauty of your children to the winds?"

I cannot undertake to relate at present one tithe of the precautions taken in the care of infants. Did I venture so to do I should have to "descend" to the minutest particulars, such as the dispensing with "pins," and the making the baby's dress in one piece, the nursing, and form of the cradle, to the mode in which the baby is to be placed at the side of the mother, to prevent its being overlaid or injured,— everything, in fact, which in Montalluyah is thought essential to protect infants and save them from unnecessary suffering, in order that their young strength may be husbanded for the future requirements of the man.

To give you some notion, however, of the minutiae to which our care extended, I will explain to you one series of precautions which has great influence on the child's health, beauty, and intelligence.

Young children formerly suffered greatly from fits and various diseases, caused by the want of healthy circulation. When more advanced, and whilst learning to walk, they were subject to falls. This was amongst the most serious evils of early neglect, for it was demonstrated beyond doubt that accidents to the infant, prominent amongst which were blows

received on its head, not only affected its after-growth, and laid the foundation of nervous and other disorders, but were often attended with the sadder result, that the child's intellect was impaired. Nevertheless, so little was this danger apprehended, that many people long indulged in the foolish habit of boxing children's ears, unaware that the shock produced on the nerves of the head, which are the conduits of electricity, often made a child stupid, if, indeed, the effects of this brutal practice were not in after-life attended by more serious consequences. In learning to walk, also, the weight of the child's body, pressing on the legs too heavily, has a tendency to make them crooked or bent, and to affect other parts of the body.

To obviate these evils, a man named Drahna invented, at my suggestion, certain mechanical contrivances, which were so efficacious, and prevented so much suffering, that his name will never be forgotten as one of the great benefactors of our world.

These contrivances are respectively adapted to the infant when it cannot sit up, when it can sit up, when it has acquired strength beyond the second stage, and, lastly, when the limbs have acquired sufficient strength to support the increased weight of the body.

The contrivance, in the first stage, is calculated to give the infant healthful exercise, circulate the blood, and, at the same time to protect him from injury. It consists of a soft spring-cushion, on which the baby is laid; two little elastic bands on this cushion secure the arms, whilst other bands secure the head, ankles, and waist. By turning a small handle the machine is very gently set in motion, but by pressing down a knob its velocity may be increased at will. So agreeable is the action of the machine, that when the motion is altogether stopped the child will often cry, or rather coo, that the movement may be repeated.

For the second stage, the instrument is similar to the first, but larger and stronger.

The third stage is adapted to the time when it is judicious to begin to teach the child to walk. The legs, and, indeed, every part of the body, are supported by the instrument, which cannot be overturned. When this is put into motion, the child's left leg is first moved, then the right, and so on alternately. A perfect idea of walking, with the necessary movement of the joints, is thus given to the child, without the slightest strain on its limbs, as yet unfitted to bear the weight of its own body. The machine continues in motion for a time sufficient to exercise without causing fatigue.

As soon as the child has acquired the knowledge of the motion, and his limbs are strong enough to support the weight of the body without injury, these machines are put aside, and the fourth contrivance is used. In this, the mechanism consists of a framework with very light and soft bandages, made with the plumage and down of birds. With these bandages the child's head, knees, elbows, wrists, shoulders, and loins are gently bound. The framework to which the bandages are attached has a projection from every point, on which the child, in case of accident, can possibly fall, and he is thus effectually protected; for, as the projection allows of his falling only slightly out of the perpendicular, the concussion is but slight, and the young one is only pressed gently on the soft down.

As the child increases in strength, the projections are removed at intervals, one by one, commencing with those corresponding to the knees, the last removed being those protecting the head, which are retained for a long time. Even when they have been removed, the head is still guarded by a light turban with inside springs, made so as to yield gently to a blow, and thus save the head; so important is it considered to protect this superior portion of the human frame.

When the bandages are first removed from the knees, the child has perhaps some falls; but these, the head and other parts being protected, are not attended with any serious consequences; and if the child actually falls, the sensation of pain he may experience may teach him to be more careful in future. Such lessons would, indeed, be valuable at all times; but they would be purchased at too great a cost if learned at the price of injury to body and mind.

The use of these four instruments was followed by remarkable results; and they are thought of such great value to the community that the districts supply them gratuitously to the poor. Those thus charitably bestowed are less ornamental than the others, but equally efficient.

THE TEETH.

The teeth are also subjects of great care, and the infant is spared all pain in cutting them. When the teething-time is near, and before the pains attending it have even commenced, the child's gums are rubbed night and morning with a bulb or root so softening and relaxing in its effects, that after a short time the teeth make their way through the gums with perfect ease. When the teeth are too numerous the redundant ones are extracted, without causing the patient the slightest pain. A hot solution of the same bulb is applied to the portion of the gum which encloses the tooth to be extracted; causing the gum to separate from the roots of the tooth, which is then removed with perfect ease. None are extracted after the last have appeared, for decay is effectually prevented. In seeking remedies for the maladies of those who were born before my laws came into operation, the immediate cause of decay was discovered; but we did not rest until we had detected the remote cause and the means of preventing the evil.

By the aid of the microscope and other scientific appliances the discovery was soon made that decay in teeth is produced by a minute worm resulting from the absence of the proper electricity, necessary for preserving in the tooth a healthy action. When this electricity is deficient, the circulation in the bone becomes sluggish, the fatty matters stagnate, and through the warmth of the gum acting on the stagnant accumulation, a single worm is generated.

Though we had discovered the existence of the worm and the cause of its being bred, some time elapsed before we were able to discover whether the necessary electricity was wanting, and, by supplying the deficiency, to prevent the generation of the worm. At length a professor, by name Jerronska, invented an ingenious little instrument, of a form

corresponding to the upper and lower jaw, and furnished above and below with small points or minute spikes; the instrument in a contracted shape is introduced into the mouth and is there expanded to correspond to the form of the jaws. It is charged with an electricity that can escape through the spikes only, and is opposed to the electricity of the teeth, which if healthy will cause a slight shock to the patient, without any other inconvenience. On the other hand, if any of the teeth do not contain the proper kind or quantity of electricity, they will turn to a colour like fire, leaving the healthy teeth untouched; for the instrument affects those teeth alone whose electricity is defective.

We have then the means of impregnating the unhealthy teeth with the proper electricity, and thus destroying the incipient ovum, which cannot live in an electricity healthful to the tooth.

In like manner, minute precautions are taken to preserve the beauty and power of the eye. Formerly, in consequence of the intensity of light in Montalluyah, and through other causes, the sight suffered severely.

Our physicians also found out the means of tracing and removing the germs of defects in the ear, the nostrils, the tongue—in short, everything that, if neglected, might impair the adult's energies and beauty.

Great attention is paid to the quality of the air in which children are bred, for air affects both the blood and the nerves. Its effect on the blood was long known, through the fact that air is one of its important ingredients; but its effect on the nerves was first demonstrated by observing that nerves taken from a person recently dead shrivel and contract in a vitiated atmosphere, and revive and expand when brought into the open air.

The proper mode of rooting out incipient evils is thoroughly understood in Montalluyah, there being eminent men, who make each division and subdivision of various sciences their sole study and occupation. The sight, for instance, is a great subject of study, and affords a striking instance of our subdivision; for although there are scientific men who have a general knowledge of the eye and of the human system, these

make particular subdivisions of the subject their peculiar study and sole occupation. Thus, one great subdivision is the "Bile of the Eye;" another is the "Moisture of the Eye;" another the "Concentrated Light of the Eye;" another "The Relations of the Eye to the rest of the System," and so forth.

To resume: these matters, and, indeed, many more, receive effectual attention from the moment when the child is born. Every good attained goes on increasing under direct and collateral influences, until by a prolific and cumulative process, extraordinary and beneficial results are obtained in lieu of the evils that would otherwise have arisen. In short, to understand fully the extent of the good achieved, one must have been, as I was, a witness of the means and their effects—of the marvellous consequences of our attention to "little things."

XXXIII.

GYMNASTICS.

> "Let your statue be beautiful, but neglect not the pedestal, lest with every adverse wind it receive a shock."

Our care of the future man is not, as I have said, confined to his infancy, but is extended to all the critical periods of life. The proper development of the frame and of manly qualities is looked upon as an essential part of the boy's education, and much of the strength, beauty, and longevity of the people is due to the physical training of the student.

Formerly little discrimination was used in the selection of bodily as of mental exercises; the same exercises being allotted to the brave and the timid, the weak and the strong boy.

Now, on the other hand, the exercise is adapted to the boy's strength and physical organization, which often differ as much as his genius from that of his companions. Exercises beneficial to one constitution are prejudicial to another, and would, perhaps, develop a part of the body already having a tendency to exaggeration.

Thus a youth inclined to be tall and lanky, or whose limbs are disposed to be too long for symmetry, is not allowed the same exercises as those of a youth with short limbs or inclined to be corpulent.

We have numerous gymnastic exercises. Some parts of our apparatus are much like yours, as, for instance, a cross-bar, on which the boy swings, holding on with his hands.

In the case just mentioned a tall, thin, long-limbed boy would not be permitted to use this bar; whilst a boy with short limbs and inclined to corpulency would be encouraged to use it daily.

A medical man attached to the college attends on the gymnastic ground to observe the efforts each boy is obliged to make in performing his exercises. When the exercises are ended, the doctor examines the boy's pulse, and, with the aid of an instrument invented for the purpose, tests the heat of his brain. The boy with whom the exercises agree will show a healthy heat and a strong, full pulse; whilst others will have the brain extremely hot, with the pulse very quick, but feeble. The doctor having formed his opinion, orders that these boys should discontinue the exercises antagonistic to their system, and they are led to those more adapted to their capabilities. The weaker boys are also often separated from the stronger, to prevent that overstraining to which a weak but high-spirited lad is frequently impelled by the emulation of example.

In the allotment of exercises our aim is to develop thoroughly the muscles, and to give a regular and general action to all the members, but not to overstrain them. The power of each boy being thus carefully remarked and regulated accordingly, all gather strength rapidly, and most are soon able to resume the exercises for a time abandoned. Indeed, by the precautions taken and the exercises selected, the body is fortified and rendered so firm, that in after years it will bear very great fatigue without sustaining injury.

BATHING IN THE SEA.

As already mentioned, ablutions are in great favour in Montalluyah, and bathing is in constant use. At a certain period of the year—about six weeks in the whole—our boys are made to bathe every morning in the open sea, into which they are taught to leap from adjacent rocks. Having

been told off according to their strength and capabilities, they are gradually led to higher and higher rocks, till at length they become accustomed to jump from a vast height with ease and without fear, and thus to dive in the sea.

When there is a timid boy, six or seven of the bravest are selected to accompany him. They are directed on no account to urge him to jump off the rocks, or to taunt him for not doing so, but to let him act as he pleases. If he does not imitate their example by jumping off the rock, the overlooker who has the care of the party will say, "As you have not bathed from the rock, you had better bathe below;" and the boy is then sent to bathe with the younger ones from the beach. Ere long, of his own accord, he becomes desirous to imitate the braver boys of his own age; though I have known twelve or more mornings to elapse before the higher leap has been attempted.

When at last the boy has resolved to jump from the rock, great care is taken neither to praise him too much nor to reproach him with awkwardness. On his return to the school, he is examined by the doctor, to see if his nerves have received too great a shock, and directions are given accordingly. After a time all traces of timidity vanish, and numbers of children have thus been cured of their first aversion to jump from great heights into the sea.

No boy is allowed, under any circumstances, to taunt another with any weakness or failing; and, consequently, the boy himself scarcely knows that it is fear which has prevented him from doing the same thing as his companions.

Every day throughout the year the boys are required to take a bath either in the sea or at the institution, unless the doctor orders the contrary.

Besides the consideration of cleanliness and its effect on the complexion and health, the water used contains iron, which in our climate is of itself very beneficial to the system.

TREE-EARTH BATHS.

Where a boy's aversion to study arises from physical weakness, we do not urge him to persevere any more than we urge him against his inclination to leap from a high rock; but, on the contrary, when a boy's bodily strength fails him, and more especially in a case of superior intelligence, his studies are suspended until the weakness is remedied. Were the boy forced to persevere, he would probably suffer both in body and mind. He is merely placed in a separate department of the college—a kind of infirmary for strengthening the young, and promoting their healthy development.

For giving the desired strength we most commonly employ "Tree-earth Baths,"—that is to say, baths of fresh earth taken from beneath the roots of certain trees, in which the boy is as it were buried, every part of his body being covered, with the exception of his head. This earth bath is placed in another bath containing hot water. The effect of this operation in renewing the boy's strength and repairing the waste of his body is marvellous.

When removed from the bath the boy is washed with tepid water, mixed with a solution of bark, and on the following day a cold *douche* is administered. The bath, in which the boy is kept for about an hour, is administered at intervals of about ten days, and is so efficacious that not more than twelve are required for the worst cases.

Previously to being immersed the boy is made to walk sharply for half an hour, and, while he is in the bath, warm liquid food is administered. The pores being opened facilitate the reception of the fresh exhalations from the earth and the expulsion of the impure gases from the body. The boy often sleeps whilst thus immersed, as it is considered highly beneficial to inhale the fresh fragrance of the earth.

The electricities proper to the earth and trees being very sympathetic to the human frame, they readily mingle with the electricity of the patient and assist in repelling the unhealthy gases and impurities in his body.

Earth electricity is of itself most beneficial, but its curative and invigorating effects are vastly increased when impregnated with tree electricity, which is strongest about the roots.

There are men whose sole occupation it is to collect the tree-earth, and who become skilful in digging and removing the soil from underneath the roots, without in the slightest degree injuring the tree.

The earth under many trees is good for the purpose above described, but that about the roots of the oak, especially when of a ripe middle age, is exceptionally efficacious.

The roots of another tree that you have, viz., the weeping willow, offers a good earth for girls and also for boys of a susceptible nature, for whom the oak-root earth might be too strong.

The elm, horse-chestnut, and lime-earths are all more powerful than that of the oak, and therefore are rarely used, for their exceeding strength would overpower the natural electricity and leave a lassitude in the patient. The tree-earth baths are rarely used for adults, except in cases when, earlier in my reign, the mental powers of several persons had been overtaxed at the expense of their physical strength.

XXXIV.

THE AMUSEMENT GALLERY.

> "The simplest electricities are often meet to discover the most precious."

The Amusement Gallery constitutes an interesting feature in the child's education, and so admirable have been its results, that the opening of the first institution of the kind—recorded, as I have said, in one of the great pictures in my summer palace—is regarded as a memorable event, and is celebrated by the people in a yearly festival.

In a very long gallery, attached to each college, is a collection of instructive toys adapted to all ages and dispositions. Amongst these are harps and other musical instruments, made on a small scale to suit the capacity of children, materials for drawing, painting, modelling, and sculpture; maps, in relief, of cities and other parts of our world, and all kinds of small birds and dwarf animals. I should not omit to state that we have living horses and deer *in miniature*: they are about the size of an ordinary lap-dog, though in many other respects resembling the larger species. These with their little clothes and harness are placed in the gallery, which likewise contains fresh fruit and flowers, indeed almost everything that can be imagined for the recreation and enjoyment of the child.

In the Girls' Amusement Gallery there are various kinds of fancy-work, lace-work, and basket-work. Our basket-work is very beautiful, the baskets being elegant in form and elaborately painted. Indeed, elegance of form and harmony of colour are studied in all the objects selected.

Boys, being trained by manly recreations, necessarily have their Amusement Gallery separate from that of the girls, though many of the more elegant and refined amusements are to be found in both. The girls attend their gallery, whatever may be their age, until they leave school. On the other hand, the boy ceases to attend when the Character divers and Judges think his attendance no longer desirable.

At each of the stalls in the gallery is stationed an intelligent person skilled in some particular art. Of these some play on musical instruments, some paint or model, others give oral instruction, according to the nature of the compartment or the wishes of the child.

There are also "Walkers," who perambulate the gallery, encouraging the child to amuse herself with what she likes, explaining the use of different objects, answering the young inquirer's questions, and noting in her any particular qualities or peculiarities. The results of these observations are drawn up in the shape of reports for the use of the Judges.

No restraint is put upon the children when in the gallery, but they are allowed freely to follow the bent of their own inclinations. I have often observed some of these little creatures ardent for amusement responding to their own predilections; others taking interest in frivolous things; others, again, listless, and interesting themselves in nothing. Whilst many would examine with breathless attention, others would ask questions, more or less intelligent, of the persons at the head of each stall.

I have seen some children with an engrossing taste for painting, music, and sculpture, who would rush straight to their favourite pursuit, without being diverted by anything else, and who, if they found the desired place already taken, would show disappointment, and perhaps refuse any other occupation. Many, on the other hand, as soon as they

entered the gallery, would simply play with the little animals and birds, or perhaps do nothing but eat fruit till the last minute, when the bell announced that the time allotted for recreation was ended.

Some would do nothing but talk, and, in their simplicity, would find fault with everything, after the too frequent fashion of adults, either imagining they could do most things better than the rest, or depreciating pursuits which they knew were beyond their ability.

Natures of this kind, where vanity is so predominant, require the greatest care, for the failing is difficult to eradicate and would, if not cured, be a source of great unhappiness in after life. To prevent such a result, generally, means are taken to refine the taste of the patient (if I may use the word), and call out the quality most opposed to the infirmity, viz., that of looking out for beauties instead of defects.

I have seen a little one change her amusements several times during the hour. When a child, particularly a girl, continues to do this during many weeks, it is regarded as a sign that if the disposition be not checked she will grow up a capricious woman, and a treatment is therefore adopted to stop the growth of the infirmity. Many a girl, who would otherwise have proved a misery to herself and to others, has, by the precautions taken, become a reasonable and meritorious woman. However, children of a capricious temperament, even when seemingly cured, require constant watching during some time, since they are very prone to return to their old inclination for incessant change.

Versatility, it should be understood, is not confounded with caprice, the difference between them being easily detected by the Character divers. I have seen children show a love for seven or eight different things and go from one thing to another, not from caprice, but to satisfy the natural yearnings of their genius. I recollect a girl, and she was but one amongst many, whose versatility was marvellous. One day music would occupy her, and, although untaught, she would give promise of becoming a brilliant performer; another day she would commence sculpture, and at once go readily to work. She first made a ball with the plaster, and then, on the second or third attempt, she would execute something really well.

So was it with painting and other arts. This love of variety would formerly have been called caprice, and strenuous efforts would have been made in a wrong direction to the discouragement, perhaps to the ruin of the pupil; but I acted on a contrary principle, knowing, as I did, that in giving varied talents Providence intended that they should be exercised, and that, therefore, it would not be decorous "to care for one part of the garden, and leave the others overgrown with weeds." The girl was treated in accordance with this view, and taking the highest honours and position, became a very remarkable woman.

Judges are not expected to form an estimate of the child's character until a certain time has elapsed and the reports of the different officers have been examined and compared. Their decisions are then registered, to be again examined and compared with subsequent reports.

The results obtained through the medium of the Amusement Gallery greatly aids the Character-divers and others occupied with education, in rightly directing the child's steps. The imposition of useless tasks, fatiguing to the children and perhaps injurious to the young intelligence, is thus avoided.

XXXV.

PRAYER.

"Forget not the source whence all blessings come."

While stating that the prayers said by girls after their early meal are short, I ought to have added that the same rule is followed with regard to children of both sexes.

We even vary our forms of worship and services to suit different ages. Before my reign adults and children went to the same places of worship, repeated the same prayers, and listened to the same discourses, most of which being perfectly unintelligible to those of tender years, the evils and inconveniences resulting from the practice were very great. The children, finding the routine irksome, the constrained decorum required of them during a time which seemed to them never ending (for the services were then very long) was painful in the extreme, though they were sometimes relieved by turning their thoughts in other directions, perhaps to subjects irrelevant if not opposed to the ostensible object of the meeting.

Thus pain and weariness became then and in after life naturally associated with the most sacred of duties, and generally those, who at an early age had been obliged to attend most regularly to an unintelligible and irksome routine, were in after life those who absented themselves most frequently from the place of worship. I have known some, and this will scarcely be credited, who from an early age had in obedience to their parents' commands attended church with what was to them painful and

monotonous regularity, and who, as soon as they were old enough to leave the parental jurisdiction, never entered a place of worship again until the day of their death, so great had been their stifled repugnance, created by the unnatural surfeit which had been inflicted upon them.

This was not all: the repugnance thus engendered often extended even to the faith itself which the prayers and discourses had been intended to inculcate, and led the way in after life to doubt and disbelief.

There was another though a secondary evil, attendant upon these old formalities. In our climate, where children are very susceptible, it happened that when on rare occasions any striking observation attracted their attention, they would put questions very difficult for their parents or preceptors to answer.

The forms of worship and service are now adapted to three several ages and classes of intelligence. The first series is for children of from seven to ten years of age, the second for children from ten to sixteen, the third for adults. If the children, however, show any deficiency of intelligence, they are kept in the first or second series, though the stated age has been passed.

The discourses addressed to the young people are adapted to their age and intelligence, and ordinarily bear reference to their own passing actions, and consequently to their hours of play and of study. They are intended to inculcate lessons of self-control, love for parents or associates, contentment, and the mode of showing gratitude for benefits received, by cultivating the faculties which God in His goodness has bestowed. The discourse often points out the mode of contending against any bad feelings that might possibly be awakened. They might be told, for instance, that if during play any dissatisfaction with their companions arose, and they felt they could not control themselves, they ought immediately to retire from the game, in order that their feelings might have the opportunity of returning to their proper channel, and on no account to urge anything against the supposed offender until they had advised with some friendly adult, or more especially a Character-diver.

The children are encouraged not only in their affection to their parents and immediate associates, but in brotherly love to all, and the whole discourse, which is very short, is pointed to their duty to God, being calculated to instil feelings of love and adoration for His goodness.

In the first series, for very young children whose intelligence is undeveloped, we have forms and ceremonies, the tendency of which is to fix their attention and inculcate thoughts and habits of a good tendency.

In the second series the addresses are of a more elevated character, and are accompanied by fewer forms and ceremonies.

In the highest series there are scarcely any ceremonies, and although the service and discourses are short, every one is expected to pass a certain time each day in voluntary prayer and meditation in the private cabinet which in every house is set apart for devotion only.

Though the prayers for children are short, the preacher is greatly assisted by our method of education, inculcating the worship of the Supreme by habits which the child is led to form. Thus we require the greatest attention to cleanliness, to the mode of eating, sleeping, talking, and indeed to all the daily practices of life.

The inculcation and exercise of good habits is considered to form, as it were, a perpetual living hymn to the Creator.

LECTURES.

Besides all this, twice a week, amusing lectures are delivered, on familiar subjects, to explain and illustrate the power and goodness of God.

A flower, for instance, is taken, and, in simple terms, intelligible to nearly every capacity, attention is called to its thousand fibres, its construction, growth, perfume, colour, delicacy of texture, loveliness, and to the wonders associated with its birth, death, and resurrection to life.

Another day, perhaps, the subject may be a child, a fly, or some other familiar object; but, whatever be the subject, the discourse is of a good tendency, and youth are early imbued with love and admiration for the Supreme Being.

Our objection to children repeating or listening to words which they do not understand is not confined to those of sacred import. During the education of their young minds the subjects taught and the expressions used are adapted to their intelligence. Even though they may repeat every word of the lesson set with minute accuracy, they are not allowed to quit it, or to attend a lecture on another subject, until they have passed through examination in different forms, and often by different masters, and the result has clearly shown that they thoroughly understand what the words of the lesson are intended to convey.

So important is this considered that, on the occasion of the public solemn ceremony, when in presence of the Kings the preceptor is appointed to his responsible duties, one of the obligations to which he is required to subscribe is, that he will teach the pupil to understand thoroughly, and not merely by rote,—"monkey-like," or as you would probably say, "parrot-like," were the same obligation imposed in your world.

XXXVI.

FLOCKS AND HERDS.

TREATMENT OF ANIMALS.

> "Why are the poor hungry?—Why do not your flocks and herds multiply and increase?—Why do ye maltreat the sire and kill the mother of many progenies."
>
> "Obey my Laws, and your flocks will equal in number the drops of water in the great Cataract, which ever flowing, ever merging in the mighty Ocean, is constantly supplied with new increase for the refreshment and delight of Montalluyah."

Amongst the numerous precautions for the promotion of the general health is the attention given to the subject of animal food, the care taken of the beast, the mode of slaughtering, and the rigour with which every beast having the slightest tendency to disease is rejected as unfit for food.

All animals, and particularly those intended for food, are now treated with great kindness, gentle treatment and cleanliness being thought essential to the excellence of the meat. Formerly, when the beasts were improperly treated, the growth of the young was impeded and the quality of the meat deteriorated. They are now watched over with the utmost care, the greatest attention is paid to the most minute particulars, and so well are they treated, that, notwithstanding the heat of the climate, they

are quite tame. When any one goes into a field, the sheep and lambs will come round him and lick his hand. Their pasture is changed every week, for it is found that, when in our climate grass is eaten too closely, noxious insects are bred by the accumulation of stale manure. In or near every pasturage are pools of running water, to which the animals are conducted daily. These are supplied by a very high jet which, when in action, throws its water from a reservoir to a long distance, which may even be increased by means of pipes, and thus fertilizes the field. Much of the water proceeds in the first instance from the cataracts, which begin high above the level of the meadows. As soon as the animals are turned out, the jet is made to play on the fields they have quitted. Then the moisture, mingling with the fresh manure, and our glorious sun enrich the land, and luxuriant grass is quickly produced.

In former years diseases prevailed amongst our flocks and herds. We had one amongst the sheep, not unlike the smallpox of your world. These diseases were generated partly by the filthiness of the pasturage, and partly by a want of change, which I believe to be principal causes of many of your cattle diseases. We now give far more attention to the cleanliness and health of the animal than in our world was formerly bestowed on the poor.

In every field is a shady spot, contrived to protect the animals from the sun during the heat of the day. The ground being very undulating, a shade is obtained by merely throwing out, from the higher land above, some wood or other material to serve as a roof.

In case of illness among the animals, the great remedy used is a particular kind of electricity, which gives an impulse to the blood and changes the humours. This, with diet and care, is the only expedient employed to restore the animal to health. If a female animal is of a sickly nature and likely to give birth to inferior beasts, she is quietly put out of the way.

THE MALE ALONE KILLED.

To the care taken of the beasts is greatly due the perfection of their breed and to a certain extent their numbers; but the law that contributes most to the marvellous increase of our flocks and herds is that which forbids the slaughter of the female. In every species the male only is used for food. If we killed the mother we should, as it were, kill the progeny that would otherwise be bred from her, and our immense stocks would not then be a hundredth part as numerous as they are at present.

The cow, after she has ceased bearing, is used to carry the women's baskets, or for very light draughts. The ewe, when she has ceased bearing, is trained to assist in field and garden operations, to pull up cabbages, carrots, and other vegetables, being, in short, more useful to us than the dog.

SLAUGHTERING ANIMALS.

In killing animals for food all painful processes are avoided. Under the old system the cruelty with which the animal was treated, and its suffering from the violence of the death-struggle greatly affected the quality of the meat, lessened its nutritive powers, and rendered it less digestible, and very often exciting and injurious. Now, when an animal is to be killed, it is placed in a large lighted stable, over which is a loft, communicating with it by means of a grating. In this a man is stationed, who thrusts through the grating a long stick, baited with a bunch of fresh grass, in the middle of which is contained a small globule endued with the property of depriving the animal of all consciousness and sense of feeling. As soon as the beast has eaten the grass, and consequently swallowed the pill, he staggers and falls; and, before he has time to recover, the butcher despatches him by cutting his throat and letting out the blood, whereupon he dies a painless death, without a struggle. Only one animal is despatched at a time in the same stable, so that one does not see another killed. There is reason for this precaution.

A lamb takes the ball of grass from the hand, for it is thus our shepherds sometimes feed them. Poultry are killed by very small quantities of the preparation being mixed with their grain; the fowls sometimes take up two or three grains not impregnated with the material, but as soon as the smallest particle is swallowed they stagger and fall. It is interesting to see this, the effect is so instantaneous. The ingredient used does not in any way injure the meat and is indeed considered beneficial, even to the human system, when administered in small quantities, since the torpor it causes at the moment is succeeded by increased vitality and strength.

THE BLOOD OF ANIMALS.

When the animal is killed we are very scrupulous in pouring out the blood, which we avoid using for any purpose connected with food. On *every* occasion of the kind "field doctors" are present to see that all due precautions are taken. They analyse the blood, and if it does not contain the proper ingredients, the animal is looked upon as diseased, and its flesh rejected as so far unwholesome; in our climate it would be difficult of digestion, and produce heaviness, disinclination to study, despondency and other inconveniences. Blood is said to contain the electricity that, in connection with the electricity on the nerves, gives action, feeling, pleasure, and pain. Blood, indeed, contains as it were the material through which the life of the animal carries on its operations.

PROTECTION OF THE MEAT FROM INSECTS.

The animal as soon as killed is cut up into different portions, each of which is placed for a few minutes in a large vessel containing an infusion of a certain herb, to which flies and winged insects of all kinds have a great antipathy. The steeping of the meat into this preparation effectually protects it against their approach. There are immense numbers of winged insects in our climate, but none will approach food which has been steeped in an infusion of this herb. By these and other precautions they are kept within certain limits and driven to the uses for which nature intended them. It is not necessary to keep the meat in the

vessel for more than a few minutes, nor does the liquid deteriorate the quality or taste of the meat. Far from being noxious to the human race, the herb, which is free from smell, contains a healthy bitter, is cooling and refreshing, and cleanses and preserves the pores of the skin.

Formerly numbers of persons were affected by the deposits, which, left by flies on meats and provisions generally, caused irritation of the bowels, diarrhoea, and vomit, and were otherwise very injurious to the system.

I may here mention that a preparation of the herb to which I have referred is used for fruits and provisions generally, which are protected by a light gauze steeped in an infusion of the herb and thrown loosely over them; though, indeed, it is only necessary to place the gauze at the side of the provisions to prevent the approach of the enemy.

This infusion is also used in our houses, and during repasts; couches, bedding, and coverings are sprinkled with the liquid. A preparation is also used for the toilette, in order to protect the head and face from the flies.

CRUELTY TO ANIMALS.

Cruelty to an animal, even when not intended for food, entails so much disgrace that it is an offence of the rarest occurrence. My laws provide various punishments according to the grade of the offender and the nature of the offence.

If a common man were really cruel to his horse he would be compelled to draw his merchandise by hand. If the offence were committed by a man of high position the punishment would be more severe, and not only would he be treated as though he were unworthy of exercising power over good animals and consequently deprived of all his horses, but he would be supplied with a vicious horse, which, perhaps, he would be obliged to ride along a dangerous path, that he might thus be made to

appreciate the superior gentleness of the one he had maltreated. If the offence were repeated, he would be degraded from his position or condemned during a certain period to wear "the dress of shame."

XXXVII.

THE ALLMANYUKA.

> "Improve Nature's gifts, and with her elements form new compounds....

"Were man's faculties given that they should slumber?"

Nothing engaged my attention more than the health of my people. I had satisfied myself that the most virulent diseases took their development from minute, nay, almost imperceptible causes.

As I had determined to find out the germs of faults in children, which, when neglected, led to confirmed vices in the adult; so I was determined to discover disease in its incipience, and wherever possible, to remove the exciting cause.

I have already referred to the creation of a new fruit-vegetable, as one of the subjects of a series of pictures in my summer palace. I will now relate to you some facts regarding the production of the fruit, the offspring of my anxiety for the health of the people.

In the early part of my reign, before the means had been discovered for detecting the incipient germs of disease, the people were afflicted by the return of a painful malady, with which they had often been afflicted before. It was attended with irritation of the intestines, and carried the

sufferer off rapidly; for, although all the doctors were familiar with the symptoms, none of them had been able to discover the cause of the disease, or its cure.

I remarked that the children at the colleges were not attacked by this disease, and therefore thought that it had probably originated in something used by adults and not by the young.

The truth of my hypothesis was soon tested. A person of robust frame, whom I much esteemed, died suddenly of the malady. I entreated his friends, in the interest of humanity, to allow his body to be examined.

The people at this period indulged in the use of sauces, seasoned with strong stimulating spices. These were excluded from colleges, and consequently were used by adults only.

I communicated my opinion to the doctors: viz., that in the case they were about to examine, it would be found that these burning condiments had inflamed the intestines, and impeded nature in the discharge of her functions. My impressions were correct. With the aid of the electric microscope upwards of forty minute ulcers, highly inflamed, were discovered in the intestines of the deceased, and in each of these ulcers were seen several minute grains of some very hot condiments much in use, which had affected the inner membrane, generated the ulcers, and caused a hasty but painful death.

Assured of the baneful effect of the condiments, I determined to forbid their use, though I knew this would be a serious infliction on the people, inasmuch as the extreme heat of our climate made stimulants necessary. The condiments were much liked, and amongst all the many fruits and vegetables we possessed there were none that could be used as substitutes.

On forbidding their use, I made known publicly the discovery that had been made, every particular being clearly explained, that the people might be convinced that I was acting for their good.

In obedience to my orders, the spices were collected from every quarter, and placed in large warehouses secured under lock. The "bolts" were delivered to the kings, who were astonished at the rapidity with which I had obtained obedience to a decree depriving all of what had become a daily want.

I saw, however, that unless the people were supplied with a substitute for what they had lost, they would soon return to the deleterious condiments in spite of my decree.

Having made known to all about me that I wished some hours for serious thought, I shut myself up in a little cabinet at the summit of my palace, where I could see only the heavens. All around me was silent and calm as night.

Having prayed the aid of the Great Power, I endeavoured, by intense meditation, to discover what healthful condiment could be substituted for the deleterious spices of which the people were deprived.

After many hours of deep meditation, a ray of light burst on me and I was inspired with a happy thought. I could not as yet see the result clearly, but nevertheless I felt that in the end my efforts would be blessed with success. I did not hesitate to publish the fact that I had made a discovery which, when perfected, would repay the people twenty-fold for the loss of the condiments they had given up in obedience to my decree.

In the mean time, until I could fully carry out my intention, I allowed the people a particular kind of cordial; for I found that, after the extraordinary heat of the day, many persons required stimulants, especially mothers, who had been educated before my laws had come into operation, and whose health and constitution had not consequently been properly fortified.

I proceeded with my work. We have a small vegetable, called Jappeehanka, that hangs from its stem like a fruit and has a rich creamy taste, without any other flavour. I grafted this vegetable on a tree called Klook, the fruit of which, used generally by persons of delicate digestion, had a sour aromatic flavour.

After many disappointments and unsuccessful attempts to obtain the vegetable I wished, I succeeded, by artificial means frequently employed, in growing a small vegetable, combining the flavour of a delicate cream with the piquancy of lemon.

The most difficult part of my task had however not been accomplished, namely, to give to the vegetable all the aromatic and stimulating flavours of the prohibited spices.

A fine specimen of the seed of each of the spice plants having been procured, I took from the heart of each seed the smallest possible particle, and, having with the greatest care made an incision in one of the finest seeds of my new vegetable, I inserted therein one specimen of each of these minute particles.

The incision was made in the centre of the seed, but not deep enough to enter or injure its heart.

The seed of my cream-lemon vegetable, containing the spice seed particles, I confided to the care of my principal gardener, a man of great scientific skill and intelligence.

I must not omit to say that we extracted the oil out of the roots of each of the spices formerly in general use and mixed the oils with the earth in which we planted the newly-compounded vegetable seed.

We watched the precious seed night and day with anxious solicitude. I had other seeds ready prepared and planted, in case this should fail.

One night in my slumber I was disturbed by my attendant telling me that the gardener had an important communication to make. I bade him enter. He came to make known to me that my labours had been so far successful, that, in the vase of earth in which the seed had been planted, a little white bud was bursting from the ground. He brought the vase in his arms, and I will not deny that I shed tears of joy.

About three years from that time, to my delight, fruit made its appearance. I watched with greedy eagerness the day when it would ripen.

I cannot tell you with what anxiety I tended its growth. I fancy at this moment I feel the heart-beatings that always accompanied me as I approached the spot where the plant was placed.

The gardener, desiring to save me some of the pain of deferred hope, told me that the time of ripening would be later than I had anticipated.

A little in advance, however, of the time I had foretold, the gardener entered my study, with a face radiant with joy, and placed before me one of the prettiest little baskets I had ever seen, though the beauty of our basket-work is, as I have said, remarkable. I thought it must be a present from his wife, for she was very skilful and often presented me with baskets of her own work. Loving my people as I did and looking on them all as my children, I saw the nervous state of the man, and to reassure him, I said, "This is kind of your fair Lineena." At the same time I admiringly examined the basket, but its weight indicating that there was something inside, I raised the lid, and beholding its contents I uttered a cry, such a cry of joy as might escape a parent on finding a long-lost child.

The basket contained a specimen of the precious fruit quite ripe. I turned it on every side with anxious interest, and, having congratulated my faithful gardener, who had so zealously carried out my wishes, I descended to the culinary department, for I would not trust the precious treasure to others, and I immediately proceeded to cook the vegetable of my creation.

I directed a small bird to be prepared with which to eat the new condiment, that I might thus test its properties; when it had been served, I directed the gardener to sit at my table. The success was beyond my best hopes. By the process of cooking, the fruit-vegetable had been dissolved to the consistency of a jelly, and formed the most relishing sauce ever tasted,—aromatic, stimulating, and appetising.

To a richness like cream was added the pungency and aromatic flavour of spices, with the relish of salt and the piquancy of fresh lemon-juice—in a word, the combination presented the finest flavour for a condiment that could possibly be desired, surpassing all the spices and sauces hitherto known in my world. Indeed, it was so exquisitely appetising that an epicure might easily be tempted to eat the vegetable without the addition of the meat.

During the growth of the tree, many slips had been planted, which were then in a flourishing state, so that in a very short time the vegetable fruit was cultivated extensively, and became a household necessity.

On examining the Allmanyuka (for so we called this fruit-vegetable, meaning, that it combined every valuable quality), and observing its effects, the doctors pronounced it very wholesome and nutritious, and admirably suited to persons of dyspeptic habit, inasmuch as it dispelled all symptoms of flatulency and, by its tonic and digestive qualities, gave a feeling of lightness to the senses.

The people wondered, and were loud in the manifestations of their gratitude, but my joy was even greater than theirs; for I had accomplished a lasting good for the subjects I loved.

Accompanied by my harp, I sang praises, with all the fervour of my soul, to Him who had inspired me with the thought, and had endowed me with patience and strength for its consummation.

Fruits had often been increased in size or improved in quality and productiveness, by grafting one tree upon another; but no new fruit had previously been created. There were instances, where trees of different kinds, the one grafted on the other, had borne two kinds of fruit. This, however, was the first instance where other means, besides grafting, were employed, and where an entirely new fruit had been brought into existence.

The Allmanyuka grows like a tree, and its stem is supported by sticks. The fruit, which hangs from its branches, is in shape, but in shape only, not unlike your vegetable-marrow, being covered with little circular divisions, each containing others still more minute.

Its colour, when raw, is of the brightest violet, which through the culinary process becomes a beautiful red, though I should observe, that the first compound vegetable in the seeds of which I inserted the spice particles was yellow.

It may not be uninteresting to know that the Allmanyuka is cooked in a vessel over steam. Indeed, everything with us is cooked by steam, this being especially serviceable, on account of the steadiness of its action. There are machines to regulate the force and action of the steam, and the attendant has only to obey mechanically the simplest instructions.

The Allmanyuka is used in some sick-rooms as a fumigator. For this purpose it is cut into slices, and the exuded juice which it bleeds is accompanied with an agreeable aromatic odour.

The fruit possesses many other valuable properties. After its discovery my people were never more afflicted with the maladies for the prevention of which it had been created. It was sometimes called by the name given by me,—often by a term signifying, "Inspiration of the Father of the World." [1]

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> [Footnote 1: Although it may appear incongruous to refer to a philosopher of this earth as illustrating the work of a philosopher of another planet, the Editor cannot help quoting a passage from a man possessed of wondrous prescience, who, to use his own words, "held up a lamp in the obscurity of philosophy that would be seen ages after he was dead." It will

also in a measure convey the difference between the process of grafting and the course pursued by the Tootmanyoso in the creation of the Allmanyuka.

The inspired philosopher says: "The compounding or mixing of kinds in plants is not found out, which, nevertheless, if it be possible, is more at command than that of living creatures, for that their lust requireth a voluntary motion; wherefore it were one of the most noble experiments touching plants to find it out; for so you may have great variety of new fruits and flowers yet unknown. Grafting doth it not; it mendeth the fruit or doubleth the flowers, etc.; but it hath not the power to make a new kind. For the scion ever over-ruleth the stock."—*Bacon's* 'Sylva Sylvarum.']

XXXVIII.

PAPER.

"...A handmaid and messenger of Memory.
A recorder of the aspirations of Genius."

There is a peculiarity in the leaf of the Allmanyuka which I will now mention; but, to make myself intelligible, I must give you some few facts about our paper, of which we have an unlimited supply, and which is made from the leaves of nearly every kind of tree, gathered just before they begin to fade, but whilst still green. Dead leaves are used for other purposes.

The leaves of some trees make finer paper than others, and, though every kind of leaf is available, one kind only at a time is used to make paper of the finest quality. Mixed leaves are used to make paper of a common and coarser kind.

All papers, when dried in the sun, have a glossy surface, and none can be torn, or ignited by the application of fire; the paper will smoulder, but not burst into flame. Our paper is transparent, and is besides so very light, soft, and pliable, that in warm weather it is used for children's dresses. Very pretty it is to see the graceful movements of the little creatures' limbs through the pellucid costumes, which are made complete without a seam, the material being most beautifully fine, like one of the silk gauzes of your India.

In our world it was well known that paper could be made from rags, but this material was not as plentiful as leaves, and we discovered, moreover, that it was injurious to the workmen, whilst the manufacture from leaves not only produces a paper far superior to that made with rags, but is a most healthful occupation.

Our trees are, I believe, more numerous than yours; but you have many trees even in Europe from the leaves of which excellent paper of a kind similar to ours could be made, as, for instance, the horse-chestnut and oak. The horse-chestnut leaf makes some of the best paper; the leaves of the lilac-tree and of the apple-tree are also excellent; but perhaps the best leaf of all for very fine paper is the vine leaf, which has less moisture, and gives less trouble in the preparation.

In the manufacture of paper the leaves are subjected to a great pressure, and the fragrance emitted from the crushed leaves is delicious, and considered very wholesome, so much so indeed that young children are often sent to reside near the place where the leaves are being crushed to inhale the fragrance.

The original moisture is removed by a substance, chiefly consisting of a very fine sand, beautifully compounded with other materials, and spread over a hard pliant stuff. This laid on the pressed pulp sucks out all the original moisture. The fine sand material, though possessing quite a smooth surface, is like a sponge in its power of suction, and, when used, is unrolled and pressed over the pulp by a machine.

This done, the plate containing the paper is moved to an adjoining part of the building, which is roofless, and is there exposed to the rays of the sun, which finishes the drying process and gives a beautiful glaze or polish to the paper. Nothing so well dries the paper as the sun, as we have proved by frequent experiments. After the sun, fire is the most efficacious agent; but this gives the paper a dead and chill appearance.

Our paper is as good as yours, though not better to write upon. I have already informed you of some of the points of difference between them. Paper can be made to almost any size, and without any seam. One other

peculiarity is that our paper makes no more noise when doubled up than a piece of linen.

The colour principally in use is that of cream or a very light yellow; for though we can produce a chalky white, we do not use it in our stuffs, except for linen.

There is a paper which we call "natural," because its green colour exceptionally resembles that of the leaf, although it is purely artificial, being produced by the use of a powder obtained from a particular fruit which hangs from a tree in the shape of small eggs, and contains a white powder of a sticky consistency. This powder is mixed with the leaves, and the paper thus prepared is very transparent. At first it has a kind of primrose tint, but, when subjected to heat, or to the sun, turns green. The egg called "Brulista Tavi," or "Lime Egg," follows a small blossom, but the fruit alone is used. The trees are plentiful, growing on marshy ground, a long distance from, the city, for there are no marshes in its vicinity.

GOLDEN-COLOURED PAPER.

Some paper is of a pure gold colour, the result of a property inherent in the leaf itself and needing no extraneous application.

I have told you that the coarse paper is made with leaves of every description mixed together. On one occasion some of the paper, when dried, became speckled with gold in different parts, presenting a beautiful appearance, which astonished the overseer and workmen. The paper was brought to me, and I directed the overseer to endeavour to detect in future processes the cause of these beautiful specks. Many trials were made, but he did not for months find any gold in the paper.

I meditated much on the subject, and one night I retired to rest with the singular phenomenon still in my mind. In my sleep I saw my tree, the Allmanyuka, all gold.

On awaking I immediately sent for the overseer, and, without relating what I had seen in my sleep, I told him that I was impressed with the belief that it was the leaf of my tree that produced the gold specks, and requested him to have some paper made entirely from the Allmanyuka leaf, and to use the most delicate machine for the experiment.

Though accustomed to obey my orders in implicit faith, the overseer confessed to me afterwards that for certain reasons he had great cause to doubt whether the experiment would succeed. It, however, was commenced without delay. The pulp, or jelly, after having passed through the process of boiling, was of a neutral tint, without the least appearance of gold, and all hope of the desired colour vanished in the thought of the workmen. It was, indeed, reported to me that no golden tint was apparent; but I did not yet despair.

When the pulp was spread out with the trowel, it remained still colourless, but after it had undergone the process of pressing, which generally took place immediately before sponging, it presented to the astonished workmen the appearance of one sheet of gold; and when it had been exposed to the sun, it acquired the highest golden polish possible.

The material thus obtained is finer than cambric, and is used for beautiful scarfs, sun-turbans, neckties for ladies, slippers, covers, cushions, and various ornamental articles.

XXXIX.

CONSUMPTION.

THE EMEUTE.

> "The huge poison-tree once lay concealed in the heart of the minute seed. Why seek ye not the germs of disease poison in their minute receptacles?"

Formerly, in certain parts of the low marshy lands, the moist and noxious exhalations generated various diseases, particularly one answering to your phthisis, and called by us karni-feroli, that is, "absorption of the vitality." Numbers lingered, with energies depressed and faculties impaired, till cut off by death. In its early stages, the disease gave no indications of its presence beyond the signs common to the most ordinary illnesses to which, indeed, they were attributed. However, no remedy was found by the doctors.

Even where the possible presence of the disease was suspected, the respiratory organs of the sufferer were subjected to various tests; but if certain symptoms were absent, and the patient breathed easily, the physicians concluded that there was no danger in the case. The signs they sought were in reality those belonging to an advanced state of the disease and, when these appeared, the malady was generally beyond cure.

No effectual measures were taken for discovering indications of the earlier stages of the malady before the beginning of my reign, when I observed that many young girls, who at first seemed to suffer only from debility and lowness of spirits, soon afterwards withered, and died of what was then called by a term answering to your expression of "rapid consumption." This often happened where the patients had been previously pronounced free from organic disease.

I knew that, in the physical as in the moral constitution, evils, however grave, have their origin in some incipient germ of small proportions, and I would not believe that the confirmed ulcers, which I had seen during the examination of diseased lungs in the Theatre of Anatomy, had arisen suddenly, for I reflected that the operations of nature are gradual. These ulcers, which are, I think, called "tubercles" by your physicians, had been the immediate cause of many deaths.

After much meditation, I concluded that the actual beginning of the malady was unknown, and that the inability of the doctors to master the disease arose from the inadequacy of the means employed for its earlier detection.

I had frequently expressed my convictions to the ablest medical men, but they held to their opinions and practice with unyielding tenacity. Our doctors at that time thought that there was no science beyond what they themselves knew, just as there were many able men who maintained that there was no other world but Montalluyah, until the invention of my telescope brought your earth and other worlds within the limit of their vision.

A young and interesting girl, a penitent, from a course of incontinence and excess, suffered much from weakness and lowness of spirits. The doctors examined her in the usual approved way, with and without their instruments, and declared that her lungs were healthy and sound; all that now ailed her, they said, was the depression arising from involuntary regrets and longings for the excitements of her former life. I had a strong impression, however, that this was not the cause of her

prostration, firmly believing that her lungs were affected, though the doctors assured me that they had used every test with scrupulous care to detect disease and had arrived at a contrary decision. Not being convinced, I requested them to give me a daily report of the girl's progress.

As she grew weaker, the doctors determined to administer a powerful potion, which would lay the foundation of her cure, if their estimate of the malady was right, but would accelerate death if the lungs were really affected. Persuaded that, in the then state of medical knowledge, the girl's life could not be saved, if the disease was really phthisis, and knowing that, if it was not the case, the potion was calculated to do good, I did not prevent the doctors from acting according to their own convictions.

The potion was administered accordingly, and the girl soon fell into a calm and tranquil sleep, from which, to the surprise and consternation of the physicians, she never awoke.

The body was examined, and on the right lung were found pimples, small indeed, but visible to the naked eye, which, on closer examination with the microscope, proved to be incipient tubercles; the left lung was similarly affected. These incipient tubercles, though sufficient to cause languor and debility, by attracting the vitality of the body, had not yet become of sufficient size and virulence to affect her breathing; hence her lungs were considered sound by the doctors, who only regarded the usual tests.

I called together the principal physicians, chemists and heads of science, and requested them carefully to study this formidable disease; and, after a time, the discovery was made that all the most fatal cases of consumption were ushered in by the appearance on the lungs of minute incipient spots, which attract and feed on the vital juices of the body. These spots swell gradually into pimples of a reddish hue, on which ultimately a small yellow head appears. This breaks in due course, and the matter discharged spreads, combines, and assists in the growth and

accumulation of other and larger tubercles, which cause much pain, greatly impede the passage of the air, and eventually carry off the patient.

Although pain is sometimes felt in the earlier stages of the malady, the passage of the air through the lungs is not as yet affected to any very perceptible extent. It was also found that the ordinary symptoms accompanying the presence of these spots were similar to those produced by many other causes; so that the symptoms of one disease might easily be mistaken for—as was actually the case—those of another.

The tests hitherto used were thus clearly shown to be insufficient for detecting the disease, until the tubercles had assumed a size and virulence sufficient to affect the breathing,—until, in fact, the malady was too often beyond cure.

After some time and many experiments, most efficacious means were discovered for detecting and curing this dreadful disease while still in its incipient state.

I ought to mention, that on the death of the girl to whom the potion was administered, her friends learning that I had not opposed the administering the fatal potion, were very violent against me and, instigated by those who had at first opposed my law, openly declared that she had been put to death by my orders. They thus succeeded in arousing the passions of the multitude. At that time many young persons were dying of consumption in a marshy valley, while others were afflicted with disorders, which baffled the skill of the physicians and were accompanied with the same symptoms that attended the malady of the deceased girl. During the popular excitement to which I have referred, the parents of these sufferers were made to believe that potions similar to those which had already been administered with such fatal results, were now to be administered to their own sick children, and that similar results would ensue.

I lost not a moment in summoning before me the heads of families and friends of the sufferers, at the same time announcing the subject on which I wished to discourse.

The meeting took place in the great hall of my palace, which is capable of containing many thousands, and I explained to the assembled multitude that when the potion was administered to the deceased girl, the malady was so far advanced that there were no means of saving her life, and that in administering the potion the doctors had hoped to do good, believing, contrary to my own convictions, that the complaint was not organic. I explained that her death, and the knowledge gained by the examination of her lungs, would be the salvation of most of their children, of the nature of whose malady the doctors were now convinced.

Asked by the girl's friends if I would myself take a potion similar to that administered to the girl, I offered to drink double the quantity, in the presence of the assembled multitude. When the cup was close to my lips, and I was about to drink the potion, a woman in the crowd called out that the liquid I held in my hand was innocuous, and very different to the poisonous draught administered to the girl! So convinced was she of this, that she offered to let her own child drink the potion out of my cup!

This child being, as I believed, afflicted with incipient consumption, I cautioned the mother, explaining to her what would be the consequences of her rashness. Still she insisted, and adhered to her opinion that if I could drink the potion with impunity, the child could do the same. I resisted, until at length many in the crowd, who had before been influenced by my words, inferred from my hesitation that what the woman said was really true! Perceiving that further hesitation on my part would result in great evil, and in many deaths, I allowed the child to drink a quarter of the potion, and I swallowed the rest myself. My lungs being perfectly sound the potion only stimulated my system, but the effect on the child was the same as it had been on the girl: it slept, and woke no more.

Having addressed the people for a long time and calmed their anger, I requested them to proceed to the place where the girl's body lay, to convince themselves of the advanced state of the disease under which she bad suffered. They were then marshalled by the officers of my palace, and proceeded to the Anatomical Theatre, where they satisfied themselves with their own eyes of the truth of what I had told them. Public confidence was restored, and many sufferers were saved from premature death.

Effective means were afterwards taken to detect the minute incipient pimples with which the disease was always ushered in, and never afterwards was it allowed to reach serious proportions. It was destroyed in its earliest germ, and thus much power and vitality and thousands of lives were saved to the State.

XL.

THE HARP.

> "Music....the emanation of the concentrated light of the soul....The language of the angels."

The harp is our principal musical instrument. We have one that is portable and in form like a lyre; but our great harp is much larger than yours, differently constructed, and far more effective, combining, as it does, in its tones all the delicacy, expression, and oneness of a single executant, with the brilliancy and power of a combined body of performers.

It rests on a ball firmly placed on a massive pedestal, which is easily moved from one place to another by means of small wheels. The ball on which the harp rests revolves in a socket, so that the instrument can easily be placed in the position the performer desires, and then, by means of a bolt, fixed firmly in its place. No support from the executant is needed. The harp does not rest upon him in any way, and he has, at the same time, entire power over every part.

The instrument is divided into fourths, that is, into four sets of chords. The first only of these four sets is touched by the player, but on any of the first set being intoned, each corresponding string of the three other sets, all of which are stouter and more powerful than the set played upon, resounds in harmony.

The power given out by the three sets of strings is proportioned to the sound produced on the first set by the performer, as the force of an echo is stronger or weaker according as the sound producing it is increased or diminished in volume.

In the framework of the harp there are conducting strings of electricity, which unite all the rest with the first set and with each other. The electricity is generated by a liquid contained in a small tube, and is set in motion by the movement of the strings of the first set of chords. The tube can be placed in or removed from the instrument with the greatest ease; without it, the first set alone responds to the player's touch.

The musician has the power of varying and depressing the notes of the instrument in a marvellous manner, so as to produce instantaneously the most delicate or the most powerful sounds, with endless modulations and variety of tone. I have heard echoes and responses given out as though the music had been breathed from a great distance;—the gentlest whispers were alternated with all the force of a band of music.

I could not, without much expenditure of time and labour, and without explaining our science of music, which is altogether different to yours, convey to you an adequate notion of the effect produced by a skilful player. I have seen a multitude turned away from evil designs by the exquisite playing of the harpist—their passions calmed, their thoughts raised from earth to heaven.

By the aid of little knobs on the instrument, the diapason can be changed to an extent that you would not credit, for it has reference to a system different to yours. The compass and extent of sound given by our harps is very considerably higher than the notes produced by your violins, and deeper than the lowest notes given by your contrabassi.

We do not count by octaves, but by touching twos or threes different characters of sounds are produced, indicated by names such as—gaiety, joy, melancholy, truthfulness, fickleness in some things, fickleness in all things, an exalted mind, poetry, domestic peace, hatred, jealousy, morbid sensibility, pardon, receiving again into favour, flowers, decay of

health, sickness, returning health, love in a gentle degree, love in a sublime degree, doubting, also trusting love, loneliness, disappointment, ambition.

These and many other sentiments are expressed by strains that go directly to the soul, and without the need of words. As all in Montalluyah understand the language the music is intended to convey, the player, without opening his lips, can express himself on the harp as clearly as by discourse; and two persons playing can hold a conversation.

As you have certain sounds responding to *do, re, mi*, &c., so have we certain sounds and harmonies that convey certain expressions; for instance: "I esteem you;" "I feel you in the pulsations of my blood," *i.e.* "I love you." Or perhaps the vibrations of the same harmony would be varied so as to be higher or lower, sharp or flat; and the player would convey that he felt the presence of his beloved in the appropriate vibration of his nerves.

In another harmony, he would compare the admired object to some beautiful soft bird like the Zudee, or a pet like the Kamouska.[1]

[Footnote 1: See p. 145.]

On the occasion of a love scene between a great harpist and a lady, I have heard the following, amongst many other sentiments, expressed by the harp: First Lenordi the harpist expressed his glowing sympathy, his admiration of beauty, of goodness, his pleading to be heard, his hope that no other occupied the lady's thoughts, his despair if his prayers were not listened to, hope, expressions of eternal devotion; in short, all the possible outpourings of a loving heart. It would be too tedious to tell you all he conveyed, but he ended thus, "Thou art pure as the dew upon the leaf of opening day ... but like to that dew wilt thy love pass away!"

Giola—the lady—took her place at the harp, and played a response expressing the following:—"Would I might believe these flattering vibrations, and the bright hopes raised within an hour to wither in a day.

"Could they but last, the skies above would pale beneath their brightness.

"Yet I would not doubt thee; thy every look makes life a dream of love."

The player then made excuses for her seeming enthusiasm, by declaring that even inanimate matter is moved by his soul-stirring strains.

"Every flower and every tendril is moved by thee, for, like thee, they are fresh and gently gay."...

This led eventually to a "choice" meeting, and the marriage was attended with many interesting incidents. Their history would of itself form a curious romance!

Every one competent is educated in the meaning of the harp-sounds, and the instruction in this branch of study commences at an early age. Certain sentences are written, and a sound is given out and repeated till the young person thoroughly understands what he has heard. Then the sentence is renewed, perhaps, in connection with another sentence, the accompanying sound is given, and in a short time the student says the word or sentence accompanying every sound, and thus he soon learns how to use these sounds, and how to vary and combine them, just as an alphabet or series of words would be used by an able writer.

When the instrument is used as a subsidiary agent, and the player accompanies his own or another's voice with words, he plays an accompaniment implying words, but not so as to attract attention from the singer. There are certain accompaniments which are adapted to anything that might be sung. These, however, the player can vary, if his talent is sufficient.

Our songs are generally spontaneous effusions, but there are songs with which certain words are permanently associated.

The harp itself is beautiful as a work of sculptural art. Around its framework most elegant and tasteful ornaments are executed with the minutest perfection—small birds of variegated plumage perched on graceful foliage of green enamel, with flowers in their natural colours, so executed as closely to resemble nature. The birds, flowers, and foliage are connected with the chords of the harp, and conceal from view small vases or reservoirs set in the framework of the instrument. From these with every touch of the chords a beautiful fragrance is exhaled, the force or delicacy of which depends on the more powerful or gentler strains produced from the instruments.

The instant the player strikes the chords, the little birds open their wings, the flowers quiver in gentle action, and then from the vases are thrown off jets of perfume. The more strongly the chords are touched, the more powerfully does the fragrance play around.

In tender passages the perfume gradually dies away, till it becomes so faint as to be appreciated only by the most delicate organisations. The result, however, is, that the sense is gratified, the heart touched, and the whole soul elevated. I have seen the most ardent natures calmed and rendered gentle by the divine strains of this angelic instrument.

It is said that in the angelic spheres flowers breathe music as well as fragrance, and that the sound itself has form, colour, and perfume. This belief suggested the thought of uniting them in harmonious concert for the gratification of those who had exercised the gifts accorded them by Heaven to a good end. As they had gained their position by their own merit, it was sought in every way to increase their happiness and their enjoyments. Nothing that art could produce was thought too good for them.

I loved the world. The wicked only are impatient and discontented. I knew that blessings are everywhere about us, though we are expected to exercise our intelligence to make them available; and whilst I inculcated that "intemperance is not enjoyment," and that "intemperance destroyed the power of enjoyment," I did not hesitate to tell my people that the

world and the blessings everywhere abounding are given us to enjoy, and that, like guests invited to a banquet, we were neither to run riot nor to reject the good things offered us in love.

XLI.

SOCIAL INTERCOURSE.

> "The contact of society is necessary for the nurture and preservation of the generous feelings implanted in us by the Great Spirit."

In the system I inaugurated, where every man pursued his occupation with enthusiastic delight, because he was engaged in that for which nature and education had fitted him, it became necessary to enjoin recreation and amusement as a duty, particularly in the case of learned men, whose attention was concentrated on one particular subject.

Before my reign learned men had been sometimes prone to seclude themselves from the world, while the opulent indulged in amusements to excess, and had indeed need of laws rather to restrain than to enjoin indulgence. Now, however, few, except the "humble" classes (for we have no "poor" in your sense of the word), would have sought after diversions had not my laws enjoined them as a duty.

As regards learned men, I knew that if one part of the brain was unduly excited and overworked, the other portions would lie dormant and suffer. All classes therefore were required to "undergo" amusements, and many were the precepts to encourage them in the pursuit. I added to these the force of my own example; for, though occupied incessantly with the cares of government and with abstruse meditations, I

nevertheless attended amusements of all kinds, and often gave fetes of great beauty and magnificence for the recreation of the people. I was a frequent attendant at places of amusement, public games, and races, and refreshed myself almost daily with the sympathetic contact of the numerous society which my hospitality brought round my table.

When my laws on the subject of social intercourse were first promulgated there were many wise men who questioned the wisdom of my requiring the learned to cultivate social relations. These addressed to me many arguments in support of their views and objected that, without having their thoughts interrupted by the clang of society, simple changes of subject, or at least the simplest distractions, would amply suffice to give the necessary repose. I always encouraged the learned to communicate to me their opinions, to which I invariably listened with attention; and in this case the arguments they adduced in support of their views were so plausible that I resolved to convince them by an actual experiment.

To satisfy them, and confirm the belief of others, I allowed the chief opponents of my doctrines to select ten learned men who desired to pursue their own idea of seclusion, and ten others were selected by me from those who were converts to my views in matters of recreation and amusement. The twenty men thus selected were, as nearly as possible, equal in point of talent, and were all engaged on the same engrossing subject—one which required great concentration of thought. The utmost care was taken that the experiment might be fairly and conclusively tried.

The result of this experiment, which extended over many years, proved indisputably that I was right; for whilst the productions of the "amusing and amused" men were equal in all, and in many respects superior to, those of the "seclusionists," the latter showed visible marks of the evils of their abstinence.

After a few years their indifference for the world had grown into positive misanthropy. They refused to receive any visits, became negligent of their personal appearance, and centred their whole affection upon the

object of their study.

Among those who had lived in seclusion seven out of the ten had lost their hair and the freshness of their complexion, both of which with us are highly valued. They were very sallow, and their figures betrayed the incipient decrepitude of old age, though for our world they were but in the prime of life, if not of early manhood. Besides which they had formed contracted notions on many subjects, some of them being what is called eccentric.

On the other hand, the collected works of the ten men who had profited by contact with the world and its amusements were equal in all respects, and indeed superior in some, to those of the "seclusionists." They were for the most part large and liberal minded. There was but one who might be called narrow-minded and eccentric, but his exceptional state was greatly owing to the fact that the origin of this tendency had not been attended to in childhood. He had, indeed, been educated under the old system and consequently before the establishment of the office of Character-divers. This man was the only one who was subject, though partially, to the physical accidents which had affected the "Seclusionists." The remaining nine "Society-sympathisers" remained fresh, vigorous, and gay.

What, however, satisfied my wise men the most was, that the works of the learned men who had lived in contact with the world were actually in many respects superior to the works of the Seclusionists, although these also were more than remarkable.

In requiring learned men to mix with the world, I did not forbid frequent solitude and retirement for meditation. I only objected to the passion being indulged in to the exclusion of the refreshing sympathies developed by a contact with society.

The result of the experiment I have referred to seemed to satisfy even the ten Seclusionists, who at least changed their habits in obedience to my law, The effects of the seclusion on some of the ten were, however, not got rid of, until a certain time had elapsed, and, but for increased

knowledge of the malady of monomania, these effects on one of the ten Seclusionists would have been even far more serious than they fortunately proved to be.

THE MONOMANIAC.

This man, eminent in the highest degree, believed that another learned man, his friend and greatest admirer, was his bitter enemy. All efforts to convince him to the contrary were fruitless, for although remarkably clear-sighted on most other subjects, he obstinately refused on this to listen to the truth. Indeed, the remonstrances of his friends had the effect of strengthening his conviction that the reptile, as he called the supposed enemy, assumed the appearance of friendship, the better to mask his infamous designs.

This delusion went on for some time, but did not show itself beyond words, and even those were never addressed to the supposed enemy, whose designs he said "he would meet with simulation and the reptile's own insidious weapons." Greatly as all this was to be regretted, the man was so venerated, and was usually so calm, that none suspected any tendency to a deranged intellect. His strong feelings were ascribed to mistaken impressions, until a very disagreeable occurrence opened our eyes to his real state.

Both he and his supposed "enemy" were present at a dinner, given by a high official, the chief Knowledge-tester or Examiner. Our dining-tables are semicircular, and the guests are seated on the convex side only. The Monomaniac, being a particular friend, honoured by the host, sat next to him in the centre. The supposed "enemy" happened to be seated at the extreme end of the semicircle, and consequently in a position to be seen from the centre of the table. All went on well till about the middle of the repast, when suddenly the Monomaniac rose, pointed to his supposed enemy, and addressing himself to the guests, said, "Look there! Do you not see the grimaces he is making at me?"

Every one marvelled! The host addressed the Monomaniac in a gentle tone, entreating him to have more control over his temper, Those seated close to the supposed "enemy" declared loudly that he had made no grimaces; but their denial only increased the fury of the accuser. A bird—considered a great delicacy—had just been placed before the host. It was arranged, as were our dishes generally, to please the eye as well as the palate, being ornamented with olives, sweetmeats, and other ingredients of varied colours. Birds, I may incidentally remark, are cooked without the bones; these are skilfully taken out and serve to enrich the gravy.

The Monomaniac again rose suddenly and, before his arm could be arrested, seized the fowl, larded as it was with accessories and dripping with gravy, and with all his force hurled it whole, with unerring aim, at the face of the supposed enemy. So great was his excitement, and so rapid his movements, that he had seized one of the "knife-spoons," and had he not been arrested, would probably have hurled that, and, indeed, everything within reach against the object of his fury.

At private dinners the number of guests never exceeds twelve, and at the back of each, corresponding to every seat, is a small closet, ordinarily used by each guest for his ablutions. Into one of these the Monomaniac was placed with considerable difficulty, everything with which he could injure himself having been previously removed. By the doctor's order he was treated as a patient and, after some time, the result of the application of the tests, then only recently discovered, showed that he was much affected with brain animalcula, which had been generated by the exhaustion of one part of the brain, in consequence of the incessant occupations of another portion, by one all-engrossing subject, without the relief of sufficient air, recreation, and bodily exercise.

The "supposed enemy" and the Monomaniac had been both occupied on the same subject; the latter was much superior, and had consequently attained greater distinction. Nothwithstanding this, he was fearful that the "enemy" would ultimately excel him.

At the end of a few months the Monomaniac was completely cured. It was not, however, until after a year's travel and change of scene that he was allowed to resume his old studies. He now became more brilliant than ever, and we were indebted to him for some valuable discoveries. He had learned that his supposed enemy was a real friend and true admirer of his great talents. He never suffered again from the affliction, which, had it not been arrested in time, would have ended in confirmed madness. He became more than ever a strong advocate for the observance of my laws in favour of recreation.

XLII.

THEATRES.

ELECTRICAL ENTERTAINMENTS—AMUSEMENTS—INTRODUCTION OF STRANGERS.

"....Even the daisies of the field grow in company...."

Besides theatres of another kind, there are large arenas, where the entertainments principally consist of feats worked out by electricity and produce effects far beyond anything as yet known in your planet. These arenas are open to the sky, for electric effects are not exhibited in roofed buildings, from fear of the explosions which would probably occur were antagonistic electricities brought in contact with each other in a covered space.

The games exhibited are varied; but, in all, electricity has some part. As I have already said, we have electricities, some attractive, some antipathetic to the human frame,—and by the aid of both kinds many interesting feats are performed.

I have seen a man and horse in the arena, who, at a given signal, would rise gradually and gracefully to a distance of more than fifty feet from the earth. When suspended in the air a cloud, like fire, would encircle them, and then after a certain time, sufficient for the spectators to observe and admire them, they would alight on the earth as gradually and gracefully as they had ascended.

THE FLYING CHILDREN.

In one of these arenas is a large sheet of running water, supplied by a cataract in the neighbourhood; and I have seen the most beautiful effects produced by children gliding over and as it were dancing on its surface. The children are selected from the most graceful and beautiful of those, who, not having sufficient intellect to learn, give no signs of making a progress which would fit them for more important occupations.

These children are taught and *willed* to move in the most graceful forms. Joining hands and forming exceedingly beautiful groups, they will glide over the cascade and over the surface of the agitated lake, walking, dancing, or reposing.

WILL.

In assuming these graceful forms, the children are aided by a person skilled in the use of the Will, who, with the assistance of our "sympathetic-attracting machines," [1] can *will* the children to take the most varied and graceful positions. The effect is fascinating, elevating, and refining.

[Footnote 1: See p. 265.]

The man who directs the sympathetic machine, *wills* the figures from his imagination or memory, this being part of the art in which he is skilled.

In your planet, you do not know the extent of the power of the Will; and yet it is the Will—the Will of the Soul—which sets our vital electricity in motion, directs it on particular parts of its own machine—the brain—or on the sentient faculties of others. This same vital electricity can be used with greater force and certainty of direction, when assisted by the instrument which I have called "the sympathetic machine."

THE DEAF AND DUMB CHILD.

I have seen one little girl deaf and dumb—the only instance in my time—in consequence of a fright her mother had experienced. The child was of so nervous a temperament, that she could not be taught anything intellectual. She was lovely, with long hair that fell about her in graceful curls, and in whatever way she sat, moved, or reclined, her poses and movements were angelic.

It was found that the only thing which would awaken her dormant senses was electricity; and that, under its influence, she would be well and happy.

This child was at length taught to remain for some time together in one of her beautiful poses.

The circus in which I saw her is built close to a mountain or steep ascent, which rises almost perpendicularly to a great height. By the power of an attractive electricity, she would be made—whilst in one of her beautiful poses—to rise gradually, and to be borne flying, as it were, in the air. She would then be made to alight on the top of the high rock, where a halo of concentrated light was thrown on her; this clung about her, attracted by a solution with which her dress was sponged. The light was calculated to remain undissipated for half an hour.

After some time, and having taken the most graceful poses, encircled with the lovely halo, the child would glide off the rock and descend slowly and gracefully through the air—with the varied colours of the halo about her—as though she were a being of the celestial stars.

Of all exhibitions, I have never seen any more beautiful than this. It served admirably to raise, refine, and rouse the spectator to enthusiasm.

THE MONKEYS.

On the other hand, some of our electric exhibitions produce mirth. For instance, the effect of electricity on the monkeys in Montalluyah—who are very sagacious, having faces white like a human being, and talking like parrots—is ludicrous in the extreme. When engaged in chewing and eating their favourite nuts, they find themselves, in spite of their cunning, raised to a great height, without seeing the man underneath their pedestal, who impels them upwards with antipathetic electricity.

When they are thus in the air, and, in spite of all efforts, unable to descend, their antics are of the drollest kind. They, in turn, threaten and entreat the audience, but are soon reassured and liberally rewarded for the parts they have played in amusing the public.

Apart from the contemplation of electrical effects, these amusements may appear somewhat puerile. It should therefore be observed that our people generally retain to the last an almost child-like freshness of feeling, which renders them keenly susceptible to the most innocent pleasures. The tragic drama is for us extinct. Towards the middle of my reign, plays based upon crime ceased to be heard with pleasure, as the new generation, trained under the wholesome influence of my laws, could scarcely understand a plot relating to passions entirely foreign to their nature. The writers for our theatres, properly so called, have since that period confined themselves to subjects illustrative of country life in plain and mountain, and to incidents which, though happening at a distance, are known to occur.

No accidents arise. Our professors are very skilful, knowing the exact quantities of electricity required for a given time, and at what rate its power will decrease. Electricity in all its variations is thoroughly understood by our electricians.

Electricity, indeed, now forms part of the studies of youth in general, and its leading features form part of the early knowledge taught to both girls and boys.

There are races and public games of all kinds, and, besides the fetes and amusements given by private persons, there are balls and social reunions given by the districts.

Even children have their parties and balls, to which they are taken from four years of age and upwards. The labouring people, or poor, have theirs. They go to work more cheerfully when they know that amusements are to follow, and return to their labours with redoubled energy. They are now contented and happy.

Old people, although allowed to attend the soirees of the young, have parties of their own, to which none who have not passed a certain age are admitted.

One day in the week is set apart for amusements of all kinds.

To the reunions given by the districts, all who have passed a certain age are invited, every seven days, until the age of forty; after forty, once in three weeks; after sixty, once in every six weeks. All who have not passed their fortieth year are expected to attend these reunions. Those who have passed forty may attend as often as they please.

INTRODUCTION OF STRANGERS.

Amongst these reunions there are balls and parties given on certain days in every month, for the introduction of strangers coming from other parts, who are received in a separate room by the Master of the Ceremonies, or, as we say, "Introducer of Strangers." Having satisfied himself of the status of the strangers, this officer announces the name of the eldest and conducts him round the great room, where all the company are assembled, which duty performed, he conducts the guest back to the strangers' room, and then, having returned into the assembly-room, asks if any one wished to make objection to the stranger's reception. If none is made, the visitor is escorted back and presented to the whole company, and the most distinguished amongst them are expected to take him by the hand and seat him by their side.

This ceremony over, the stranger is allowed to visit every person present at their residences, where he is received with great hospitality.

When, however, in answer to the Introducer's question, any one says, "I do object to be introduced to that person," he is required to state his reasons, which the "Introducer" writes down, and which the objector is required to read and sign.

The "Introducer" then proceeds to the strangers' room, and says to the proposed guest, "We find it will not be agreeable to terminate the presentation to-night, so we reserve it for another day," which is fixed accordingly.

On the following day, the most effective means are taken to test the validity of the objections, and it has been found that the few cases of objection that have been raised have been almost invariably based on error, or on exaggerated trifles, which would scarcely bear a moment's examination.

As a record of every one's career is faithfully kept, we have ready means of making ourselves acquainted with every one's antecedents and, consequently, of testing the validity of the "objections."

The objections being removed, the stranger is received with a hearty welcome. When conducted into the assembly-room, the person who made the objections having been pointed out to him, he is addressed as follows:—"In all this great assembly, this is the only person who urged anything against you, and we find that all he imagined arose from misconception [or as the case may be]. This we have taken every pains to rectify, and we leave to you to do what may be pleasing to yourself, in order to convince him still more completely of his error; and you have our best wishes that unity, harmony, and peace may exist between you." This done, the newly-received guest is seated between the principal personages, and is treated with, if possible, more kindness and consideration than if no objection had been made. In each class we follow the same custom, which we find works admirably well. It is peculiarly adapted to our system.

THE ATTRACTING-MACHINE.

I have spoken above of our sympathetic attracting-machine, and I may mention here that by means of certain acids acted on by the sun's rays, a person can be compelled to move even from a great distance towards a given point in the way willed by the operator. It is, however, necessary to discover, first; the particular acids that have most affinity with the person to be attracted. To ascertain these with certainty, there is a little instrument with many separate cells, all communicating by means of its tube with one little ball, and each containing a different acid.

Unless some attraction, or power in sympathy with the acids, is applied to the ball, the acids remain quiescent, each in its separate compartment. To discover what acids have most attractive force with a given person, the ball is placed against his breast, whereupon the portions of those acids which have affinity with him rush forth from their respective cells up each tube into the ball, where they immediately commingle, forming one compound liquid of unequal component parts. The scientific man charged with the operation then notes the exact quantities of each of the component acids, and all pertinent particulars.

This is an easy process. Each principal acid is weighed before being placed in its cell, which is open from the top; and before the ball is removed from the chest, what remains of each acid is taken out from its compartment and re-weighed. The difference between the weights, before and after the operation, gives the exact weight of each acid, forming one of the component parts of the amalgamated fluid in the ball.

It is rare that the exact proportions of the same acids are applicable to any two men, though, as in the case of faces, the difference may be so slight as almost to approach identity. In some it is very great; but the same kinds of acids suffice to ascertain the attractive power of every individual.

The particular sympathetic acids and their proportions having been ascertained, the attracting-machine is prepared and charged with a large quantity of the sympathetic compound, sufficiently powerful to attract

the person selected, although placed at some distance. To be effective, however, the operation must take place while the sun is shining; and it is also necessary that the person directing the machine should exercise a certain amount of will tending towards the end desired. The power of will is great, and there are a few persons who can make others do certain things without the aid of the instrument, by the power of will alone; but, in such cases, the person "willing" must be near the person acted on.

XLIII.

SHIPS.

> "Would ye triumph over the seas in all their fury? Would ye spare the lives of those who toil for you? Let your ships he harder than the rocks, swifter than the message-bird, more buoyant than the swan, and as enduring as the Mestua Mountain."

Our ships are of peculiar form and construction, and of all but exhaustless strength and durability. In ancient times the form of a fish had been taken as a model for their construction, and the same form was continued for centuries. The ships built on this principle, however, often foundered at sea, or were broken to pieces, when driven against the rocks, by the violence of tempests.

Moved by the loss of life and consequent suffering thus occasioned, I sought to construct a vessel that could neither founder nor be broken, at whatever speed it might move.

I reasoned that a fish, formed to live and to act principally under the water, was hardly a fit model for ships intended to float on its surface, and certainly not to sink.

After much consideration on the part of our scientific men, the form of the swan was successfully adopted as best fitted for sea-going ships.

Our "Swan-ships," as I may call them, are constructed of timbers, previously seasoned to prevent insect breeding and to resist all tendency to shrink, and are completely covered with the hide of the hippopotamus, which, it should be observed, is impervious to water, and, when prepared for use, is so tough that no knife or machine, however sharp or powerful, can cut, pierce, or indeed make any impression upon it, until it has passed through a process, in which fire has a great part, and is thus purposely deprived of its impenetrable nature.

In the construction of the ship, the outline of the swan is followed as nearly as possible. The prow rises out of the water, shaped like the bird's neck and head; the keel is rounded like the belly; the stern is an imitation of the tail; the legs are supplied by two large adjuncts in the shape of webbed feet, with the addition, however, of numerous wheels fastened round the swan's belly, which are partially immersed in the water and moved by powerful machinery within the vessel.

On each side of the swan's body is an auxiliary platform, forming, as it were, a wing. These platforms are raised in fine weather, and serve as open-air promenades for the passengers, in addition to another terrace on the swan's back, immediately above.

The ship has no masts, and is thus available throughout for passengers and merchandise. The apertures between the decking, that admit light and air, can be closed up at a moment's notice, and the vessel, being thus rendered water-tight, will ride through the most violent storm. No rocks can break her, and no sea can swamp her.

During hurricanes the seas rise so high and in such large masses, that, in descending, they sometimes submerge her; but she is too buoyant to sink, soon regains the surface, and floats on as buoyant as ever.

The navigation in our world would on your earth be considered very dangerous, if not impracticable. The swan-ship, even when driven by the tempest, must often pass through narrow inlets between dangerous rocks, sometimes *under* the rocks, through channels scooped out by the sea. The force of the hurricanes and the violence of the seas are

tremendous. Your most powerful ships could not live through them, yet no serious accident has ever befallen one of our vessels. On one occasion, when the ship was submerged for a time, the people suffered greatly from want of air, as the sea was too terribly rough to allow of any window being opened. After remaining covered by the waters for a length of time, she righted herself as soon as the violence of the waves had calmed.

On their return to Montalluyah, some of the passengers related to me their acute sufferings from want of air, and as their narrative affected me much, I resolved to discover a remedy.

Telescopic funnels to admit air were suggested by me as a provision for such a contingency as I have described. These are so constructed that in case of need they can be sent up to a great height above the surface of the sea. The principal one is placed in the head of the swan. Several experiments were made with air-pumps in the ship to draw in and diffuse air, and they fully answered this purpose.

Air can still be admitted through the head and neck of the swan, if the body only is submerged; but if this also is covered by the sea, the telescopic funnel is sent up to the required height and a new current of air is obtained. Light and air are, under ordinary circumstances admitted by means of windows made with a transparent composition of great strength.

The swan's head is reserved for the captain's quarters. His rooms are spacious and well suited to his work; his windows are, some plane, some concave, some convex, so that he can see both near and distant objects. As the swan's head is high above the body of the swan, the captain occupies a very commanding position. Outside the head there is a terrace for his use.

Our ships are very large, that each passenger may have the utmost accommodation, for we do not like to imprison our people in a narrow space; and an ordinary vessel holds several hundred passengers, besides merchandise.

To propel our vessels we use electric power, and they move as fast as your quickest railway trains; but nevertheless can be stopped almost instantaneously. The wheels outside the body of the swan, set in motion by internal electric machinery, revolve with extraordinary rapidity. To set the machinery in motion it is necessary to wind up powerful chains, and a strong horse is used for the purpose. One horse is sufficient for the longest voyage, but four are kept on board in case of accidents. The machinery could be so constructed that the horse would not be necessary; but for this arrangement much more space would be required. If even all the horses were disabled—a thing which hitherto has never occurred—the machinery could be kept in motion by manual power and leverage.

Though the propelling power is great, it can be reversed, moderated, or entirely suspended with the greatest ease. As soon as the ship is stopped, the two large "web-feet" attached to the keel fall down and assist in checking her headway.

To steer our vessels we use a winch or rudder, which runs from stem to stern underneath the swan's belly, and is connected with a wheel below the water. This rudder, which is made of metal and covered with hippopotamus hide, is sharp and slightly rounded. The mode in which it is fixed gives the steersman great control over the vessel, the more so as it moves the swan's head as well as the tail by direct action.

TIMBER FOR SHIPS.

Before timber is employed for ships, or indeed for constructions of any kind, it is thoroughly seasoned by being exposed to the sun at particular hours of the day. Timbers that have passed through this process never shrink or warp.

In accordance with my directions, wood cannot be used in shipbuilding until so prepared that no insects will touch it.

In certain parts of the bottom of the great ravine is a liquid, the admixture of refuse of all kinds. After some years this liquid becomes of a golden colour for the depth of about two inches only; beneath, it is of a muddy brown. It was accidentally discovered that the golden liquor so hardened wood that no insect could make any impression upon it, and no moisture could penetrate the fibres. There is some difficulty in skimming and obtaining the liquid in a pure state; but the operation having been performed, it is carefully preserved in large vats and remains ready for use.

The timber having been thoroughly seasoned in the sun, each plank is cut and shaped to the exact form required, and is then soaked in this liquid. If the process of cutting were delayed till after the timber had been soaked, the parts where the cuttings had been made would be unprotected from the insects. If the soaking were delayed until after the ship had been put together, the four sides of each of the timbers where it is joined to other timbers, would in like manner be unprotected, and the insects would eat their way between. The care exercised was the more necessary, as it was essential that the wood under the hippopotamus hide should be preserved from internal as well as external influences. If the wood had shrunk after it had been once covered, parts of the hide would become slack, and serious inconveniences would have ensued. I never knew one of our Swan vessels to spring a leak or to wear out. The vessels built under my rule will exist unimpaired for many centuries, whilst those built under the former system were broken to pieces on account of their foulness and leakage, chiefly caused by the ravages of insects.

THE COMPASS.

The compass used in our ships is different to yours, being based on the fact that each country has a different attraction to certain liquids. In short, we apply an electrical power entirely unknown to you.

THE ANCHOR.

The anchor is made of iron-marble, which is the strongest composition we have, and which, you will recollect, was used in the construction of the Mountain Supporter.

In shape the anchor resembles a body with six legs, like a fly—three on either side. Each leg has a crook at the end, which will grapple firmly wherever the least hold can be obtained.

The anchor is let out and hauled in by machinery made on a principle resembling the machinery of the ship itself, but, of course, on a very much smaller scale.

The rope holding the anchor is made of Bisson hair, a very strong material; and although there is little probability of its breaking, there are four other ropes of the same material secured to the body of the anchor, to serve in case of accidents. There is no strain whatever in the meantime on these reserved ropes, which hang slack, and would only come taut and into play in case of the principal rope being broken.

XLIV.

PICTURES FROM WATER.

> "The records of your actions are borne in the waters, in the air, in electricity, in the unknown powers that, by the command of Him who made them all, pervade infinite space. His might is everywhere; and the man who transgresses, sins in the presence of myriads of witnesses."

In my reign some interesting discoveries were made with regard to water.

From a source situated in the midst of a lovely scene flowed a spring of remarkably pure quality, some drops of which, taken at a distance, presented, when viewed through a microscope, a true picture of the landscape close to the source from whence they came. Rocks, trees, shrubs, sky, were there faithfully delineated with their varied forms and colours, together with the resemblances of two persons, lovers, seated on the banks. As we afterwards learned, they had been attracted by the beauty of the scene, had sat for a long time in the same place, and their portrait was, as it were, fixed on the water.

The electricity of the sun and light had thrown the shadow or picture of the scene on the fluid, whose electricity had been sufficiently strong to retain it, and bear it to the spot whence the drops of water had been

taken. This circumstance, and our knowledge that the reflecting power of the water is the result in part of its peculiar electricity, led to a very interesting discovery.

With the assistance of a powerfully attracting electric machine we can produce, together with the surrounding landscape, the likeness of a person, or of a group, actually many miles from the machine, if near the water. The image is received on the reflecting mirror of the machine, and an artist immediately copies outlines and colours.

With the aid of the attracting machine we have obtained pictures of our Swan-vessels, though a long way out at sea, with the passengers on the decks; who, on arriving, have been surprised to find their likenesses, with a similitude of the costume they wore while on board.

The machine, through the medium of the water, throws its attracting power many miles out through the sea, and reflects objects back on a large plate of a kind of ground-glass. The objects reflected are not fixed permanently, but remain on the plate for about an hour and a half after the connection with the machine has ceased. During this time an artist traces the picture which it is desired to retain, and fills in the colours. The reflection thrown is indeed little more than a pale-coloured shadow, but we make of it a reality at will.

Our knowledge of the properties of water enables us, with the aid of an electric-attracting machine, to see the bottom of the sea. Images of the deepest parts are thrown upon the mirror, the force of the machine being increased according to the depth of the sea, and the distance from the machine.

Some parts of the bottom of the sea reveal nothing but uninhabited, uneven ground, whilst other parts present the appearance of an inhabited world. We have seen the entrances to large caverns with what may be called doors, and immense moving masses; flowers and parterres of most delicate and lovely beauty; varieties of precious stones, forming devices and figures of different kinds; and large shrubs that glistened as diamonds in the sun, and thriving and blossoming, seemed replete with

life. In other parts of the sea lie strewn in irregular masses things of every description in incredible quantities, heaps upon heaps, as though these parts had at some time been dry land, where riches of every description had been congregated. A description of the wonders seen would fill many volumes.

XLV.

THE HIPPOPOTAMUS.

> "Ye seek Elikoia's life....Ye watch to make sure of your prey, when the boy is alone, his thoughts fixed on high....Ye shall wear hideous forms, ye shall wander on the land, as well as on the water, but nowhere shall ye find rest. Ye shall dread and be dreaded by all; ye shall constantly be put to death, that your hide and carcase at least may serve for useful purposes in the land that ye have denied.... Ye shall be slain with no more compunction than when a man cuts down a tree with which to make his hut." [1]....

[Footnote 1: The above belongs to the ancient mythology of Montalluyah.]

Hippopotami are very numerous in my planet; their breed is encouraged, for they are found to be invaluable.

They are of a cruel nature, and there is much antipathy between them and human beings. Apart from the valuable uses to which they are made subservient, these beasts are regarded in our planet with a feeling akin to that with which you regard the serpent, it having been supposed in the early ages of our world that the hippopotamus embodied a portion of the spirit of the enemy of mankind.

THE HIPPOPOTAMUS HIDE.

The hide of the beast is of remarkable strength and durability, and is impervious to water; indeed, its toughness is, if possible, increased by immersion. It is used for a variety of purposes, forming a covering for our vessels, the want of which nothing could supply in our tempestuous and rocky seas. It serves most effectually to insulate and protect our electric telegraphs both by land and sea. It resists the most violent usage, and no force, without the application of fire, can break it, for it is so tough, even in an unprepared state, that it can only be severed or penetrated by the application of fire and red-hot penetrating-irons.

The nearest approach to the hide of the hippopotamus is that of the rhinoceros; but this is not so tough or so durable, and it is inferior in other qualities.

The value of the hippopotamus is incalculable. Whilst alive, we can extract from him a powerful electricity. When dead, besides the innumerable purposes to which the hide is applied, his bones, marrow, oil, fat, and, indeed, every part of the carcase, are of great value.

Some portions of the ugly beast are made subservient to the beautiful, for they are used in the arts to give additional brilliancy to colours.

The bones, which are susceptible of a beautiful polish like ivory, and are transparent, are used for articles of elegant furniture and ornaments of varied beauty.

At some distance from Montalluyah is a large tract of country, called "Hippopotamus Land," where there is an abundance of everything that the beasts like or need, such as sand, moss, nut-trees, and a peculiar plant, which is their favourite food.

Numerous herds are kept on this land, and also in enclosures, as deer are preserved in your parks. In charge of them are numerous herdsmen or keepers, who may be compared to so many shepherds looking after the sheep, though the animals they tend are far more valuable.

From habit, the keepers understand all the ways and movements of their flock.

With a view to startle the animals as little as possible, the keepers are clothed in a dress made of hippopotamus-skin, the outside of which is preserved in its natural state, and it is so arranged that the men may appear like familiar figures to the mothers and the young, and not excite their fear.

It is known in Montalluyah that wild beasts often attack man from fear, lest he should do them harm.

The skin worn by the keeper is saturated with a solution made from a strong-smelling herb, to which the animals have great antipathy; and even though they may approach and smell the skin, they soon turn away, without hurting the watcher.

The beast's antipathy to this herb was discovered by accident. It happened that a herd of hippopotami were driven on land where it grew abundantly; they instantly rushed furiously into the water, and, in spite of every effort and stratagem, could not be made to return to the shore.

Suspecting that this herb was the cause of their contumacy, we took a young hippopotamus, and kept him without food till he became quite ravenous. Some of the tender herbs were then brought, but he would not touch them, and evinced other symptoms of antipathy, while he showed his ravenousness by trying to seize the keeper. He was still kept without food, and the herbs were left within his reach, but he would not approach them, though, as soon as some of his usual food was brought, he greedily devoured it.

These beasts formerly infested the rivers which run through our cities; and a very powerful solution from the herb, which they could scent at a considerable distance, was prepared by our chemists. We have great locks at the entrances of our rivers. In these are concave places in which the preparation is deposited, and the dangerous beasts are thus kept at a great distance.

In our world the hippopotami are very fond of freshwater rivers. There is a large stream called the Aoe, the waters of which have a peculiar attraction for these beasts, and I have seen it covered with them for miles.

The waters of this river are very prejudicial to man; perhaps the qualities which make them agreeable to the beast render them antipathetic to man's constitution.

In their native state, the beasts like the land as much as the water, preferring it indeed during the prevalence of certain winds. I could tell, by the direction of these, whether few or many of the animals would come ashore. From my observatory, I have seen thousands together a long way off, looking like countless swarms of flies, and all moving in a compact mass, as though they were gregarious to the highest degree. When seen from a short distance, they look like a moving lead-colour bog. I have sent to caution the hunters, for on occasion the large herds are dangerous.

HABITS.

There are times when the hippopotami seek to be invisible; they then bury themselves in the sand, and not one can be seen. At other times, miles of country are covered with them.

When the wind is in a particular quarter it causes a remarkable musical sound in its passage through the hollow rocks, which seems particularly sympathetic to the hippopotami. If, at the time the "musical sound" is heard, the sun shines, they with great rapidity place the young ones together, running round them as round a central point in a succession of circles. They jump and bound, pass and repass each other, and as it were dance with joy, in a state of great excitement continuing their energetic gambols all the time the musical sound is heard, until, exhausted with their exertions, they lie down and sleep.

It is a grand sight to see large herds of hippopotami so joyfully excited. They never act thus when stimulated by fear, but stand doggedly for some time, as though examining the cause of the disturbance, and as soon as the terror has mastered them they rush away, running at a great speed.

When they pair, they are generally constant to each other, and the female usually remains at the side of her mate: but some are capricious, and go about as if seeking other males of the herd. When the female is thus inconstant, her partner, after a time, tries to destroy her and her young, though pains are taken to prevent this result.

To save the female and her young, we have occasionally been obliged to kill the male with arrows steeped in a poison so powerful, that the slightest graze will cause instant death.

The mother is generally much attached to her young. She buries it in the sand, leaving an aperture through which it may breathe, and she lies at its side. If the temperature changes, or she fancies the calf has not sufficient heat, she will cover the aperture for a time with her head, or some part of her body. She gathers nuts, which the young one likes, and will sometimes wander for miles along the strand of rivers to seek a small fish, which she kills, and brings back to the spot where the calf has been left buried in the sand.

When the young one is sickly, and does not respond to the signs of the mother, she fancies the little creature does not like her, and leaves it to die.

REARING HIPPOPOTAMI.

In Montalluyah there are large lakes, protected and enclosed by iron-work, where hippopotami are reared.

These are interspersed with land, on which we deposit large quantities of sand and moss.

We are very successful in rearing the animals, but we take care that they should have facilities for following their natural habits.

I believe you have not been able to rear these beasts in Western Europe. You might do so by observing their habits, and even by attending to a few simple precautions. If you were once successful they would increase rapidly, and you would soon discover their inestimable value.

This is the course we pursue when the animal is reared in confined situations:

As soon as the female has conceived, a quantity of sand and moss is placed on the ground at the side of the water. This is done without loss of time, that the beast may be accustomed to the sight. Shortly, if left to herself, she will wallow in the mixture, and as soon as the young one is born, will place it in the sand, covering it over with moss.

As already observed, the female, when running wild in a state of nature, lays the young one in the sand as soon as it is born, covering every part of the body, and then overlaying it with moss. On this account, we take care to deposit the sand and moss where the animal can easily find them.

The beasts are of a very suspicious nature, and if the sand and moss were not placed near the female until after her young one was born, she would be afraid of them.

The mother is treated with great kindness, and is not allowed in any way to be teased or used harshly.

The hippopotamus is a very nervous animal, and is besides very vicious and irritable. The female does not easily forget an injury, particularly when with young. If in any way used unkindly, the effects of the vexation will endure for a long time after the birth of the young one, which will come into the world in a weakly state, and will not thrive. If it does not soon die, the mother will kill it; for, when ill-treated either before or after parturition, the mother is ordinarily impelled to destroy the calf. She is often so nervous, that, when with calf, she cannot bear to be looked at

and is then placed apart in an enclosure reserved expressly for the purpose, which is hoarded round, and no one but the keeper is allowed to approach her.

In a state of nature, the beast is accustomed to wander over large tracts especially favoured by sun and light; even the water he swims in is warmed by the sun. In the gardens in which you strive to rear these beasts, they are kept in dark miserable places, where the water is cold, and which the sun rarely penetrates. You are not kind to them yourselves, and, besides, you allow visitors to tease them.

These errors alone are sufficient to prevent the mother bringing forth a calf that will thrive.

In your cold and variable climates you would do well to have an enclosed place, a kind of conservatory covered over with glass, arranged so as to be opened in warm weather, particularly when the sun shines, and closed during the greater part of the winter, at which time the water, in which the beasts swim, should be warmed by a genial heat diffused through the building. This plan would be much more profitable than your actual dear economy.

If from any cause it is found judicious to separate the mother and the young one, care should be taken to effect the separation immediately after the birth, before the natural food has been tasted, or at least before it has become familiar to the young one, and the calf should be placed where it cannot hear the mother's moaning call.

Warmed sand and moss should be in readiness, in which to immerse and all but cover the little one.

Goat's milk, or other substitutes for the mother's milk, must be administered whilst quite warm and just drawn from the goat. If allowed to stand, the liquid would injure instead of doing good, and even if artificially warmed would not be so beneficial as the new milk.

It is not improbable that the calf will at first refuse the proffered beverage. The expedients for causing the animal to drink should be devised so as to avoid all unnecessary annoyance, and if this precaution be attended to the animal will of its own accord soon drink the warm milk, and take other proper food.

The room where the young one is kept should be of an equal warmth both day and night. In a state of nature the mother obtains this equalization of the temperature, and protects the young one from the comparative chilliness of the night air by lying across the sand in which she has placed the object of her care.

The removal of the young one from the mother is effected with ease; and as this process is with you accompanied by many inconveniences, besides being very difficult and dangerous, a few hints as to our mode of proceeding may be of use.

We have four very long sockets peculiarly formed at their base, so that they can be thrust for a long distance into the sandy ground, and there take the firmest hold. They are placed at certain distances about the spot where the mother lies, and into them are inserted four poles of great strength, so arranged that they stand at the angles of a square or parallelogram, sustaining a framework surmounted by planks sufficiently strong to support four men in case of need, though sometimes two only are required. The men, who are very skilful, are stationed one on each side of the plank, armed with a large strong net, made of a soft and agreeable material, which, as soon as the young one is born, they let down very gradually, so as to disturb the mother as little as possible. Should she be annoyed at the appearance of the net, they hold their hands, keeping it suspended, and as soon as she is appeased and closes her eyes, let it down again, still very slowly, almost imperceptibly, until it has reached the ground, close to where the young one is lying, so contriving that when the little creature moves it will be upon the net.

As soon as the young one is fairly on the net, the men apply several long canes furnished with grappling-hooks, and draw up the net containing the young one. While doing this, they throw over the mother a material

which impedes her movement, and which we call by a name that may be freely translated, "Clinging Flannel." The animal thus encumbered cannot disentangle herself for a few minutes, more than sufficient to secure the capture of the little one, which, as soon as it has been raised is let down into a vehicle ready to receive it. The instant this is done, the driver and all being in readiness, the horses start off at full gallop, and the calf is secured in a place far out of hearing of the mother.

We can almost invariably tell whether the mother is likely to destroy the young one; and if from this or other causes a separation is necessary, a similar course is pursued, even when the mother is at large. If we had not effective means of driving off the rest of the herd, the difficulty of the operation of removal would be greatly increased, for, strange to say, as soon as the calf is born numbers of hippopotami assemble at certain distances and form a wide circle round the spot where the mother and little one are lying. They do not interfere with or annoy them in any way, but, on the contrary, they stand still, look at them, and utter wild, joyous sounds, as though they were pleased with the mother and the little visitor. In Montalluyah we call this "the hippopotamus's visit of congratulation."

Before I describe the mode adopted when we wish to take one of the hippopotami from the herd, I should first premise that these beasts have the sense of hearing, acute to the highest degree, and could note even the fall of a pin. As, therefore, it is useless to try to approach them by stealth, the keepers approach them openly.

These men are, however, clothed with a dress which covers every part of the body, head and extremities indeed even the face, with the exception of the eyes, but which is made of a very pliable material, so that the wearer has free use of his body and limbs. It is saturated with the antipathetic solution, of which I have spoken above.

There is a three-cornered nut called the "lava-nut," of which the animals are very fond, and they will go a long distance in search of it. The keepers are provided with a quantity of these nuts, and the man with whom the animals are most familiar throws a few to the one selected. As soon as

the animal has tasted them, he advances a few paces. The keeper, throwing more nuts, retires a few paces; and as he continues throwing, the animal advances, the keeper receding and throwing the nuts until he has attracted the beast for some distance from the herd.

Near the keeper is a party of men furnished with a low caravan, who, while the animal is engaged eating the nuts, throw large nets over him. He struggles violently—it is, indeed, fearful to behold him; but, in the meanwhile, a very skilful man approaches, and throws over his head a cap or covering of a particular kind of wool, which for the time completely blinds him. So utterly is he cowed, that in a few minutes he is quite quiet, and it is surprising to see the difference that a simple contrivance has effected. The caravan immediately approaches with levers attached to it, by the aid of which the animal is easily put on the carriage and carried off to the place of his destination.

It is surprising to see the immediate effect on the animal when the cap is taken off. He is for the time quite docile, and as easily managed as a child.

An animal thus captured is never so wild and vicious as when with the herd, and often becomes comparatively tame.

On the other hand, the animal increases in cunning, and if again set at liberty, he still remembers how he was once served, and utterly disregards the nuts with which he may be tempted.

In our world a plant grows wild, which is much liked by the hippopotamus. It forms a bulb which contains a sort of meal, while the stem contains a juice. In my planet large patches of ground, particularly in the vicinity of rivers, abound with these plants, which grow thickly together like wheat, and in long blades.

The beast eats these plants in the green, the ripe, and the over-ripe states; and as they are thrown up in some places when others have been exhausted, the herds will pass over large tracts of country to get at their favourite food.

The nearest approach to this food in your world would be parched flour mixed with water. It would of course be preferable if the plant itself could be found.

In confined situations, when the young are sickly, we feed them with turnips and new milk boiled together. This compound is with us a sovereign remedy, and almost invariably restores them, but cannot be safely administered till the animal is at least a month old.

XLVI.

WILD ANIMALS.

> "The hippopotamus exceeds the mite in size, strength, and usefulness to man far less than do the riches yet concealed in the air, in the earth, in the waters, on the land, exceed those already possessed by Montalluyah."

I may mention here, that although the hippopotamus is to us the most valuable of all the wild animals, nearly all other beasts furnish us with materials that are turned to account.

The serpent, and particularly the boa, possesses wondrous properties. Birds of prey, many insects, and, in fact, nearly all that has life, is turned to some use. The living animals generally contain electricity of more or less value.

A large body of professors are kept by the State solely for the purpose of examining the various medicinal and other qualities found in the fat, marrow, oil, bones, and carcases of animals.

This is the mode of capturing lions, tigers, and many other wild beasts, when it is desirable to take them alive:

The huntsmen selected are men of a fearless, daring nature, and of great address and agility.

A net of iron-work of very large dimensions is taken into the wilds most frequented by the beast. This net is placed on the ground and covered over with leaves and other, materials so as to be concealed from view.

Close to one extremity of the network a pit is dug, in which is placed a hut large enough to contain two men. The pit is then covered over, though an aperture is left sufficiently large to admit air and to serve for observation and egress from the hut, from the top of which is an opening corresponding to the aperture above.

In the centre of the net some dead goats have been previously placed with a stuff of a very savoury odour, which the beast can smell for miles off, and which is so strong that when he approaches, he does not scent the men in the hut.

The rest of the hunters lie in wait in a secure place. The two concealed in the pit are on the watch, and as soon as the beast has seized the goat or is fairly within the net, they give the alarm by hoisting a long pole, and the men in ambush slip out, and by a dexterous movement close all sides of the net, which is constructed with this view, so as to form one large cage.

The efforts of the animals to break out are useless; they first rage about in all directions, but the joints of the net are so constructed that they yield without breaking.

When it is not desirable to take the animals alive their capture is more easy. One mode of killing them is as follows:—A man stations himself among the branches of a high tree, near the haunts of the animals, and holds a long pole which hangs downwards, and at the end of this a dead rabbit is fixed, in which, besides a strongly-smelling stuff, is placed a deadly poison. As soon as the wild beast sees the rabbit, he makes a dash at the pole, seizes the rabbit, eats it and, the effects of the poison being instantaneous, falls down almost immediately to expire.

Dead animals are not allowed to be brought into the city, but are flayed in the country, where are also our manufactories and other establishments, in which everything valuable in the carcase of the beast can be readily utilised.

Some of our beasts are unlike yours, but the greater number are similar, though in many of these, the nature of the animal may be somewhat different. Tigers, for instance, are in form like those on your wilds, but are not without generosity. Thus, they seldom attack each other except when the females are young, and after a fight, when one of the males has prostrated the other, the victor will lick the wounds of the vanquished in order to heal them. After this the two will be friendly, the vanquished tiger resigning his pretensions without further struggle.

I will relate to you a "Tiger" incident that occurred in our world, a long distance from Montalluyah.

THE TIGER AND THE CHILD.

Our hurricanes disturb wild animals, numbers of which approach the outskirts of the towns bordering on the prairies. People are on the watch, for sometimes they have entered the habitations.

A curious incident occurred on the confines of one of these towns. A mother had gone into the next house to fetch something required for her household use, leaving her young child, about three years old, playing on the ground. The door of her cottage was open, and she little knew that a large tiger was prowling near. The watchers had gone into the field, and the tiger approached the outskirts of the town, close to the hut where the child was playing, entered through the door, and found the little innocent, who, not knowing what danger was, allowed the animal to approach, and even patted him. The tiger crouched down close to the pillow on which the child had been playing.

The mother returned, and, to her horror and bewilderment, saw this huge tiger, with her darling child fast asleep, its head resting on the belly of the animal. She was for a moment paralysed with fear, and was unable to utter a single cry, but, recovering herself, she ran and gave the alarm. No time was lost in communicating with the officials, and very soon hunters and men skilled in pursuit of wild animals were on the spot; but

the comparatively short time that elapsed was to the poor mother, who saw the child of her affection, beaming with health, in the power of the monster.

The huntsmen viewed the great beast, but they were at a loss what to do; for the chief said, that if they shot him, even in the most vital part, he would most likely, in his death-struggle, kill the child. After some consultation, they procured a hook, fixed it firmly at the end of a long rod, and then took hold of the child's dress and pulled it by the hook gently towards them. The movement roused the tiger, who caught the rod in his mouth and broke it, as though desirous to retain the child. The child woke and cried, but the tiger licked him, and whilst so engaged the men managed to get partly over him the iron network (used, as I have described, to secure wild beasts), so as to disable him, and to get the child away. When the beast saw the child removed he uttered a piercing howl, such as had never been heard before, and, strange to say, the child was also grieved to leave the tiger, or, to use his own words, the "large beautiful cat."

The animal having been killed, the skin was dressed and presented to the mother of the child.

THE UNICORN.

There exists an animal in my planet like your heraldic unicorn. He is very graceful, but very ferocious, not heeding kindness, whilst harshness increases his ferocity.

One mode of taming him for a time was discovered—namely, to feed him with oranges! I saw one who, a few minutes previously had been dashing about with restless fury, and who, after eating some oranges, lay down quietly, and even licked the hand of the keeper who had fed him with the fruit.

Particular hurricanes bring swarms of insects, which never come near the unicorn; they seem to have a great antipathy to him.

XLVII.

THE SUN.

THE ELECTRIC STAR-INSTRUMENT.

> "The infinity of the universe of worlds is but a faint reflection of the Infinite Power that created them. By His will they were called into existence. By His will they, and all that they contain, could be swept away in an instant!"
>
> "Not even in thought can ye grasp the boundlessness of His works. How then can ye measure the infinite might of their Creator?"

My palace stands on the highest ground in the uppermost city in Montalluyah. It is of circular shape, and has twenty floors and terraces raised one above the other, the circumference of each gradually diminishing from the lowest to the highest. There are no stairs, in your sense of the word, but we are raised from one story to the other with ease by electric power. Besides the internal communication, there is another circular tower of considerably smaller dimensions contiguous to the palace, with each floor of which it communicates by a species of temporary bridge, so that persons can be moved at once to the floor they desire to reach, without the necessity of entering the palace by a lower floor. This communication can be suspended instantaneously by stopping the electric generating power which acts from within the palace, and communicates subterraneously with the "Lift" Tower.

On the highest terrace of the palace, and dominating every part of the upper cities, and many of the other cities of Montalluyah, is erected my Observatory, whence I could observe the various worlds suspended in space.

We had for a long time possessed instruments through which we could see many of the most distant stars, but with none of these was electric power combined, and their scope was not sufficient to solve certain problems of great interest.

Electricity, chemistry, the knowledge of sun electricity and of the sciences generally, had, under my system, made such marvellous strides as to convince me that an instrument might be made not only to see the stars more plainly, but to view, in some cases, their interior.

As was my wont on such occasions, I assembled together all the great electricians, scientific sun-attractors, mathematicians, oculists, opticians, and the heads of science generally; and, after many years, my own particular Star Instrument was constructed.

Although this instrument is circular, and has numerous glasses, it differs materially from your telescopes. Electrical combinations play an important part in its operations, and for the minute examination of different worlds, a different diffusion of electricities is necessary. The variation is regulated not by the distance, but by the difference in the attracting power of the star, and often, through the peculiar nature of its electricity, greater power is required to view minutely a planet much nearer to Montalluyah than is needed for one more distant.

The secrets revealed to me were so great, that when I first looked through the instrument in all its power I fainted.

With the aid of the Star Instrument I discovered the constitution of the sun, and of many of the stars and their inhabitants. Numbers of the stars have atmospheres different from that of the earth and Montalluyah. Many are inhabited by beings, of whom some partake of our nature;

some are of a nature and consistency entirely different to ours; some can only give effect to their will through a material medium; some possess creative powers, and can, by the sole exercise of will, invent the most lovely forms of beauty, and transmit themselves to immeasurable distances with the rapidity of thought.

The superiority of these in power and intelligence over man in his present state is far greater than is the superiority of man over the insect, which can as little understand the human soul as man with unaided powers can comprehend the Beings of whom I have spoken.

My Star Instrument, however, can only bring to light those Beings who, to a certain extent at least, possess a material form, though of a consistency as subtle as electricity. But the instrument does not possess the power of rendering visible those Superior Beings, whom no man in his ordinary state is permitted to see through a material medium. He only can see them even in visions who is blessed with a superior order of light—light in power and beauty far excelling the concentrated light known to us—a light like that which was sometimes vouchsafed to your Holy Prophets! And unless a person be inspired with a portion at least of that immortal light, the brightness, power, and glory of these orders of Beings, or their ways, can neither be seen, understood, nor even imagined.

The discoveries made through the Star Instrument, however, are too numerous to relate at present. I must limit myself now to little more than a few particulars relating to the sun.

THE SUN-OCEAN AND MOUNTAINS.

The Sun is a mass consisting of an immense ocean, surrounded by burning mountains of fire so huge that it would be difficult to speak of their extent, each mountain seeming to be a world in immensity!

I could perceive some portion of the mountains at intervals disengaged from the fire. The rocks seen between the flames are, with, their varied colours, magnificent beyond anything that your language can convey; though I have seen similar colours, but of far less intensity, in some of our gorgeous sunsets.

CONTINENTS.

In the midst of the Sun-Ocean there is a very large continent, besides many of smaller size, which, relatively to the larger, might be called islands. These continents are separated by seas from the large continent and from each other, and are all thickly populated by beings which, though human, are somewhat differently formed from ordinary man.

The continents, though immense, are, even in their aggregate mass, small in comparison with the hugeness of the Sun-Ocean. The nearest is at an immeasurable distance from the mountains; and the ocean is only navigable at certain distances from the outer continents.

HURRICANES.

From a circle surrounding, but at an immense distance from the most extreme of the continents, this great Sun-Ocean throws off currents of wind, terrific in their fury, in the direction of the burning mountains. Your tempest would give but a puny idea of the force of these winds, which indeed exceeds anything known even in my planet, where the hurricanes are terrific.

The winds are attracted, and their fury is increased, by the extreme heat of the burning mountains.

The ocean struggles, as it were, to quench the fire, while the fire contends with the ocean, which raises its head, as though threatening to cover the topmost mountains. However, the wind, blowing with redoubled force, supports the energy of the fire. The power and brilliancy of the burning mass are intensified by reflection in the huge Sun-Ocean.

There are reparatory powers always at work to supply the waste caused by never-ceasing combustion. There is, besides, a constant interchange of electricities between the ocean and the burning mountains, the upheaving from the ocean bed having probably some connection with the reparatory powers.

It has been ascertained, I should say, in Montalluyah that fire is produced by the union of certain electricities with a peculiar gas; and it is believed that these electricities are constantly attracted to the mountains, where they maintain combustion, and that when their nature is changed by the process, they attract other electricities with which they combine, and the compound electricity assists in replenishing the material that attracts the necessary elementary forces to support combustion.

The effect of the burning mountains on the continents in the Sun-Ocean is mitigated by the direction of the winds and other causes, but the heat is nevertheless fiery in its intensity.

Every planet has an electricity of its own, more or less sympathetic to the sun, and, consequently, more or less powerful in attracting his rays. Many planets at a greater distance feel his heat more than others less remote. There are stars where the sun is not even seen, but where, through the effect of his influence, there is perpetual spring.

In my planet the sun, even in material form, presents to the naked eye an aspect different to yours. It not only seems to be much larger, but one of its extremities has a globular form, whilst the rest presents the appearance of a large mass ending in three long peaks or indentations. Although so different in appearance, it is the same sun that illumines your earth.

Most of the stars are wholly or partly girded and intersected by seas, which assist in giving them, their luminous and twinkling appearance. To us your earth has the appearance to the-naked eye of two separate

brilliant stars.

COMETS.

Comets are stars where large bodies of the waters have overflowed, rarefied and distended by electrical attractions and repulsions. The overflowing of the waters often makes the star visible when it would otherwise pass unperceived.

Some of these overflowings take place periodically; others are the result of what may be called accident. It is probable that your world, at the Flood, appeared like a comet to the inhabitants of other terrestrial stars where, till then, it had been invisible.

There are huge masses of water in space corresponding to the expression of "the waters which are above the firmament," and many of these masses of water appear like stars when seen from our planet.

* * * * *

The great Star Instrument had brought to my view the palpable features of the Sun and the other planets. By means, not unlike those to which you are indebted for these communications, I acquired the knowledge of other facts which from their nature are not within the immediate scope of the instrument, but which were often confirmed by and served to explain many facts which the instrument itself had revealed. I used for good ends the knowledge thus vouchsafed me, and was from time to time rewarded with further revelations rich with hints which greatly aided me in perfecting the measures I had initiated for the REGENERATION of the WORLD entrusted to my charge.

THE END.

* * * * *

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