HUMAN IMMORTALITY IS DECLARED CONFIRMED BY SCIENCE

Conceptions of Human Estate After Death Vary Widely, But Idea of Survival Has Prevailed in All Ages—When Vision of This World Passes Expectation of Vision of Another Is Universal.

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IS MAN immortal? This question is one which cannot be solved by the experiments of inductive science, as the chemist ascertains facts in his laboratory, for the soul is invisible, intangible, and beyond the power of chemical analysis. However, we have the testimony of dying saints who speak of seeing friends long dead, and angels, and the Savior. Little children at the moment of death have spoken of beholding persons and scenes which belong to another world. The dying children certainly were not prejudiced in this matter, as they had no knowledge of the contentions of materialism, but spoke with honesty and truthfullness.

Their testimony fully accords with the words of Revelation, VI: "I saw underneath the altar the souls of them that had been slain for the word of God, and for the testimony which they held: and they cried with a great voice saying, 'How long, O master, the holy and true, dost thou not judge and avenge our blood on them that dwell on the earth?' And there was given unto each one a white robe; and it was said unto them, that they should rest yet a little time, until their fellow servants also and their brethren, which should be killed, even as they were, should be fulfilled."

The testimony of the dying, and of the scriptures agree in affirming the conscious existence of the soul after death. It may be objected this is the testimony of the living and not of the dead, but it seems altogether possible for man to behold both worlds, when he stands on the borderline between them.

Visions Prove Nothing.

We often behold visions of our loved and lost ones, but they prove nothing, we visit the grass-grown graves of our dear ones, but they do not speak of us nor return to solve the mysteries of the great beyond. The great general law laid down by science and scripture is this: "They have no more a portion forever in anything done under the sun." Ecclesiastes, 9:6. Perhaps some may have returned by a miracle of God for a special purpose, but this does not affect the universal law of nature.

If the dead could return at all, the murdered man would disclose his murderer. Great truths and precious secrets buried with the dead would be revealed by the disembodied soul. Mothers would return to comfort broken-hearted children and exhort wayward sons—but the universal law is they do not return. We cannot therefore look to the dead for information on the deep mystery of immortality. Only two sources of information are open to us. God might tell us something on the subject. Science might be able to throw light on the problem. God affirms human immortality in the Bible. Immortality as a fact of deductive science rests upon numerous well-known facts and principles.

Conceptions of the human estate after death widely vary, and among ancient and modern barbarous races prove very crude, still the idea of survival after death is a fact of the ages. When the vision of this world passes away, the expectation of a vision of another world is universal. It is worthy of note, too, that as paganism, ancient and modern, becomes more perfect in its ideals and refinement, the conception of immortality approaches the Christian idea in excellence.

Immortality Idea Persists.

The universality and the persistence of this idea among men must be founded in some sufficient reason. Some have tried to account for these facts by regarding the idea as an inheritance from a primitive revelation to mankind, and handed down from generation to generation. It seems, however, that the very nature of man requires that such an idea should be intuitional. There are some things which man, as a moral being, should know by immediate knowledge. His responsibility demands in him an adequate sense of self and of supreme authority, of duty and its recompense, and of destiny. All these ideas are actually possessed in greater or lesser development by the whole family of man.

Now, while immortality, as an idea, may be intuitional, most—if not all of us—get it, not by intuition, but from our teachers; and while all normal minds are capable of possessing the idea by immediate knowledge, revelation is indispensable to its highest development.

That human immortality is a fact which is fundamental to moral government.

The proper consideration of this phase of the subject requires attention to the relations of the three classes of individuals—the infant, the righteous, and the wicked—to moral government.

Man is a rational being, endowed with freedom and with a moral sense, and therefore is capable of moral obligation, and character, and reward. Mortal life, in its relation to the demands of moral obligation and to the possibilities of moral character, seems to be an unfinished existence. On the other hand, moral government, in its relation to man's capacities, is an incomplete system without immortality in man. As the subject of physical laws and the government of nature, the life of man has reference to this present world; but as the subject of moral law and government, his life has reference to the higher spiritual kingdom.

Soul and Body Distinct.

The materialist denies immortality of the soul. He says, by way of illustration, that ether paralyzes the ganglia and nerve centers, administered as an anesthetic, so the physical, mental and moral functions cease, with the exception of respiration, circulation and assimilation. Now he inquires, "When ether arrests these functions and death ensues, does death, which destroys the organism, at the same time restore self-consciousness to the soul? He affirms it does not, for "all conscious mental activity can come to pass only by normal functioning of the brain." (Scope and Method of Philosophy of Unconsciousness.—Von Hartmann).

But let it be remembered that the anesthetic, though arresting the functions except respiration, circulation and assimilation, moreover does not arrest self-consciousness. Soul and body are distinct.

Von Hartmann says if the soul exists after death it is unconscious. He declares the living kingdom originated in the unconscious intelligence or world-soul. He thus eliminates God from thought and gives to matter the promise and potency of life and consciousness. Von Hartmann says matter is unconscious mind. He explains the origin of consciousness in this way: Consciousness came of the clash between unconscious will with an unconscious idea. These two unconscious elements clashed and consciousness resulted. It follows, therefore, as a logical necessity, that if the unconscious world-soul thus produced a self-conscious man by the clash of unconscious will with an unconscious idea, then for the consummation of unconscious wisdom in the scheme of nature in the form of moral government, it is certain that the unconscious will must clash again with the unconscious idea and revive consciousness in the soul of the dead man. The scheme of wisdom in the cosmos, and moral government, both demand consciousness in the soul after death. So the materialist is "hoist by his own petard." He is destroyed by his own logic. Conscious immortality must be admitted to man the subject of moral government.

Life Held No Compound.

The dogma of immortality has met many denials, not only from the scientists but from the enemies of religion. One of the potent objections recently offered on scientific grounds is that which declares the soul is but a product of the union of the male and female reproductive cells— the spermatozoon and the egg. Since the existence of the soul begins with the union of these two elements it follows, so it is affirmed, that the existence of the soul must end with the death or dissolution of the organism.

This objection leads at once into the profoundest mystery of our being. In groping our way we may take as our point of departure the old landmark: "The earthly life of man had a beginning." The life of every plant and animal began as a single organic cell. Its growth is simply the division of the original cell into parts and the specialization of those new parts. The fundamental vital powers reside within the substance of the cell. They are not phenomena merely of the chemical compound, but of the machine called the cell. The origin of life is not chemical. It is mechanical. It was produced by a living being originally and implanted in the cell machine. It is as scientific to conceive that God made the first living organism as it is to believe the blacksmith made the plow.

In this world life proceeds from antecedent life, from parents. The vital and potential cells have been handed down from generation to generation. Within the human elements of reproduction was incorporated an element which is subject not to physical laws but to mental and moral laws. We call it the soul. This ethereal element was derived not from matter but from the Creator.

Let us now turn to the question of human genesis. The biologist tells us the egg, or female element of reproduction, consists of vital substance and organs called nucleus and chromosomes. The spermatozoon or male reproductive cell is smaller than the egg. It contains protoplasm, in which are organs called nucleus, chromosomes and a centrosome. The male cell is provided with a tail by which it moves about. When these two reproductive cells unite the spermatozoon passes into the egg. The tail was previously lost. The chromosomes are the only organs of the fertilized egg which are derived from both parents. They contain the hereditary traits handed down by both parents. The centrosome is derived from the father. It contains the life, while the egg contains the physical man in potential form. The spermatozoon possesses life, volition and power and all the basic principles which belong to the soul. This living, moving soul germ is derived from the father alone. So the living soul is not a product of chemistry, nor a chemical compound produced by the union of the male and female elements of reproduction, to perish when the compound is dissolved.

Life has descended through the male line from the Creator. Let it be noted this living existence began before the union of the egg and spermatozoon took place. It may, therefore, continue after the union is dissolved in death. Life, like matter and force, is never destroyed and lost. The physical organism returns to the chemical elements. Its elements are not lost. The moral nature of man, subject to moral government, points with undeniable force to the persistence of his personality after death.

Soul's Death Not Proved.

The dissolution of the body in death does not presuppose the destruction of the soul.

The relation between soul and body is that of co-existence, not of identity. The abstract possibility of the existence of the soul apart from the body admits of no denial. Every real existence must be assumed to continue until its annihilation has been proved. The burden of proof thus will be seen to lie upon the advocates of annihilation. The annihilation of the soul, however, has not yet been proved. In the endeavor to prove it, however, it is said that thought is a functioning of the brain, hence if the brain be destroyed the soul must perish. The error here is due to failure in distinguishing between a form of being and a form of action. The destruction of the brain serves only to prove the ending of a particular form of the soul's action, namely, the act of thinking. The cessation of some particular form of the activity of the soul or personal being does not presupose the annihilation of the being itself.

Personality is a form of being; it is the ultimate form of being. It has several native, inherent properties. Among them may be mentioned life and self-consciousness. Thought is a form of action. It has its origin in the soul itself. The brain is simply the mechanism employed by the soul in producing this form of action. Thought and all other forms of the soul's action, exercised through the agency of the brain or physical organism, may cease without affecting the personal being itself, its life or any other of its native properties. The disembodied soul may live and be self-conscious, and may know, without the act of thinking. Thought by means of a brain may, indeed, be one of the limitations placed upon the soul which is removed at death. The soul still preserves its identity, and is still capable of acting through the agency of a brain if it should again inhabit a brain.

Life Property of Soul.

In the endeavor, further, to prove the annihilation of the soul in the death of the brain it has been claimed that life is a function of the brain, hence destroy the brain and the soul must perish. The error here is due to failure in distinguishing between the personal being itself and one of its native, inherent properties. Life is a property of the soul. The brain lives simply because the living personality resides within it. The brain dies when the living personality goes out of it. Life has no objective existence apart from personal being. To be is not a function of the brain, but to do is its function. Hence, the function of the brain may be destroyed at death without affecting the personality itself or its capacity for action.

The indestructibility of matter points by analogy to the indestructibility of the soul.

The chemical element bears the same relation to the physical world that the soul does to the moral world. The chemical element, as gold, may be compounded with other elements, yet it still is gold. In a similar way the spiritual element as the soul of man may be united with a physical nature, yet it still is a soul.

Then, again, the assayer may separate the chemical elements. He does not destroy them. He simply separates them. Their relation to each other is now changed. The compound no longer exists, but the chemical elements still exist. In a similar way death may separate the soul from the physical body. It does not destroy the elements of the body—it simply separates them; and it does not destroy the soul—it simply liberates it from union with the body. The compound of chemical and spiritual elements no longer exists, though the elements themselves are not destroyed. Their relations to each other have merely changed.

Furthermore, since the properties of the gold in its simple state are more easily distinguished and more perfectly displayed than they are in its compounded state, it follows that the properties of the soul may in some degree be masked and undiscovered in its union with the body. Death may be the unmasking of the soul, just as assaying is the unmasking of the gold. In any event the gold and the soul both survive the process of assaying and of death.

The present existence of the soul warrants the assumption of its continued existence, in the absence of proof that death destroys it.

We do not know just what death is. We know only its effects, or some of them. As the soul and body co-exist but are not identical, proof of the dismemberment of the body by death is not proof of the destruction of the soul. As death is not the destruction of the simple chemical elements composing the body, it also is not the destruction of the soul, or simple spiritual element. Death seems to be rather the open door to man's higher estate of being, much as birth is to his lower estate.

The denial of a first cause is an acknowledgement of human immortality.

If the existence of a first cause be denied; if all creative acts as beginnings be denied, and if it should be affirmed that the world is eternal, having passed successively through vast cycles of development and change from apparent chaos to orderly form—which cycles ever recur, like the oscillation of a swinging pendulum, from everlasting to everlasting—even then, man, the simple spiritual element, has existed from the most distant eternity, just as has the gold or simple chemical element, and like the gold is destined to exist forever. That this is true we think is incontrovertible, or at least cannot be successfully denied.

If the soul has existed forever as an element in the world-scheme and has not lost its identity in all past eternity, with its many changes of relation, from the time of the whirling fire-mist to the era of the perfect physical man, it certainly is not inconceivable that man should continue to exist after death in new and even unsuspected relations to the universe. Moreover, even if, after all, there prove to be no God or first cause, still all the facts of human life—physical, mental and moral—all the facts of human obligation, of virtue, and of vice, together with their recompenses, remain wholly unchanged. If a first cause exists but should be destroyed, many of these facts would be lost in that destruction; but if there actually be no first cause, all these facts exist and continue to exist, irrespective of our speculations upon the subject. And who shall say that these facts, grounded as they assuredly are in human consciousness, are not consistent with the eternal world-scheme, which is sweeping on to the consummation of another splendid cycle in cosmic history—a cycle so vast as to be beyond the calculation of our mathematics and beyond imagination?

Wisdom, whose excellent impress is stamped in all the forms and features of the world around us, forbids that man, her noblest work, shall prove a sad misfit at last, stamping wisdom with the name of folly.

Power, which is everywhere exhibited in the kingdoms of this word, forbids that man, who sways omnipotence, should, after all, prove weakest of the weak.

And love, whose tender sympathies are so woven into all the fabric of earthly life, forbids that man shall utterly perish from existence, and in death be robbed of future activity and joys of which love has dreamed.

Flowers for Home and Garden

BY A. GARDEN GROWER.

TO those who may be seeking new shrubs with which to improve their gardens I want to call their attention to the little triangular plot of ground at Nineteenth and Washington streets. This has been planted by the park bureau with some shrubs, particularly evergreens, which should be of keen interest to those seeking something pretty and interesting. I am not going to attempt a review of this planting this week, for the space allotted for this department has been exhausted with two other reviews which are of real importance at this time, but next week I will tell the readers about some of the things I found in this little planting and in the meantime if they are interested they can go to Nineteenth and Washington streets, see the plantings and probably have a clearer idea when they read my description next week. The two important things which require consideration at this time is the planting of deciduous shrubs and the conserving of falling leaves and I hope the suggestions I have to make in what follows will prove of assistance to amateurs.

Planting Shrubs.

While October is considered the month best suited for the planting of shrubs and evergreens I want to give the readers of this department a warning and that is not to be in too much haste. With the mild open fall and wonderfully fine stretches of weather we have been having there has not been a frost sufficiently strong to drive the sap down to the roots and unless you wait until this happens you may have trouble with some of your plantings. What I consider one of the best nurseries in this section has an absolute rule that it will not ship anything in the way of shrubs and evergreens for fall planting until two weeks after a frost sufficiently hard to kill the usual annuals. It takes such a frost to put nursery stock into a dormant stage so that it will successfully withstand transplanting. In traveling about the city I see a great many persons doing their planting and I must say they have been very badly advised, for no shrubs or evergreens should be planted with the kind of weather we have been having unless the plants have been raised in pots and are pot-bound as the nurserymen and florist call them. If the plants have been raised in pots or tubs or boxes they can, with quite a sense of security, be planted now, but where they have been dug out of the nursery and planted again I have little confidence that they will make much of a showing next year and I think in many cases will be ruined. I see in some places where the leaves have been removed in an effort to make the plants go dormant and while this may help some, the results are doubtful. If anyone comes around now and wants to plant or transplant your shrubs do not let him do it and do not let him put in new shrubs unless he can show you that what he proposes to plant has been pot grown.

As the season is here for the planting of shrubs I have had a number of friends ask me to make suggestions as to what to plant. This is a difficult question to answer in a general way, for each place requires a different treatment. While I can give a general description of various satisfactory shrubs, it is a question for each home owner to determine what will make the proper picture for a certain location and if he is in doubt about this he can always get good assistance from his nurseryman. To those who contemplate planting I would also suggest that they visit the nurseries, see the actual plants growing and this will give them even a better idea than all the descriptions I could write or what can be found in the catalogues.

Rhododendrons Are Essential.

Of the broad-leaved evergreen shrubs there is nothing superior to rhododendrons and Portlanders can consider themselves fortunate that in the nurseries about the city they have probably the largest single collection of these wonderful shrubs of any place in the United States. When the government placed the plant quarantine restriction on the importation of rhododendrons it shut off the vast numbers which formerly came from Holland and Belgium. Some of the Portland growers were far-sighted enough to realize that it would take years to establish an American source of supply and they set about to get all the surplus stock and bring them to Oregon, where under the favorable climate this type of shrubs matures nicely. Buyers from all over the country are now depending upon Portland for their rhododendrons and probably will do so for the next two years. I feel that every garden should have a collection of rhododendrons, for they do so well, and despite the shortage of stock the prices for various hybrids range from $3 to $6 per plant, according to size and variety. Rhododendrons not only supply wonderful color notes in the garden in the spring but can also be used in almost any location. They are to my mind practically indispensable in a garden, whether used in landscape work or in a more formal garden design. They require practically no care, except the pinching out of the blooms after the flowers have withered and a mulch of leaves in the fall. They do not want to be planted in soil which contains lime, but as very little of the soil around Portland has an excess of lime they can be planted practically everywhere, but in many points of Oregon, particularly in some of the southern sections of the Willamette valley, care must be exercised as to the soil in which they are planted.

Deciduous Shrubs.

In considering a planting of shrubs I usually give thought first to the deciduous shrubs, but before taking them up I want to say that the time to plant them is when they are dormant, that is, when the leaves have fallen or at least are dropping off. Should it not be convenient for you to do your planting late this fall I would suggest that you postpone the work until spring, rather than to hurry it now when the plants are not in proper condition to plant. Of course if we have a good frost that will change matters and make early fall planting possible. In planting deciduous shrubs they should be fertilized. If at all possible get good, well-rotted cow manure and mix it with the soil with which you do the planting. Bone meal and sheep manure are quite satisfactory and should be mixed one part of bone meal to two parts of sheep manure and a couple of good trowelfuls of the mixture should be either mixed with the planting soil or lightly dug in after the new plants are set.

Types of Spiraea.

Of the deciduous shrubs for ornamental planting the spireas are always good. The Thunbergi, with its small delicate flower and slender light green foliage is very useful almost any place and particularly good in lightening heavy plantings of evergreens. Spirea Van Houtte is particularly effective. It is commonly called the bridal wreath, for its flowers come on long stems which can be woven into wreaths, and it has a graceful drooping habit when in bloom that makes it particularly striking. Many professional planters have a strong partiality for spirea Anthony Waterer. It is lower growing than the other two types and makes an excellent foreground planting.

Of the shrubs good for cutting in the spring the deutzias, both the white and pink, are excellent. They will grow six to eight feet high and three to four feet in diameter. The only attention they need is cutting out the old wood and if this is followed carefully and the plant shaped you will have a very satisfactory plant. In considering the deutzias do not overlook the deutzia gracilis, which is a small dwarfish type, with white flowers, and certainly it should be found in the foreground on mass plantings.

Colorful Weigelias.

Weigelias, of which there are several types, are also satisfactory flowering deciduous shrubs and you can cut long sprays of the flowers for home decoration. The pink is a delicate shade of rose, while the scarlet is most striking. There has been a number of new types introduced in the last few years, but I doubt if any of these are more satisfactory than the old favorite of our grandmother's garden—weigelia rosea. There is, however, an interesting dwarf of this type that should receive your consideration in arranging a planting.

Spanish broom, with its long blooming season, will give you cuttings of brilliant yellow flowers in midsummer. Do not confuse this with the Scotch broom seen so much about Portland, for the Spanish type is far different, the flowers being much larger and of a very strong fragrance. You should also have in the garden buddelia or the butterfly plant, for it will give you long spikes of delightfully fragrant flowers in midsummer when you need something of this nature.

Hydrangeas Useful.

No border or house planting I feel is complete without hydrangeas, and you can use them with freedom and be sure of having good taste whether you use the hortensia type or the paniculata. In considering hydrangeas, I want to call your attention to hydrangea quercifolia, or the oak-leaved hydrangea, and it is surprising that it is not more used in shrubbery planting in this section, for it does remarkably well. Its bloom is not so important as its foliage, which is similar in shape to an oak leaf and of a rich purple shade. This type of hydrangea is not as well known as it deserves, and if you are looking for something for the planting and with a rich foliage effect do not overlook this.

When I think of the barberries I often wonder what we could substitute for them and get as satisfactory effect and as yet I have reached no solution of the question. While the deciduous form of barberries is yielding in public favor to the evergreen type I feel every garden should have representatives of the old favorites and of these I can recommend as being satisfactory in this section the thunbergi type, or Japanese barberry, of a very dense, dwarf spreading habit; the common barberry with its erect growth and prickly stems and the barberry vulgaria atropurpurea with its purple-tinted foliage. In the evergreen barberries Darwin's stenophylla, the small-leaved type with its upright habit, is opposite the stenophylla diversifolia, which is more open in its habit. Barberry dulcis, or the box-leaved barberry, you will also find good for a long, spiny shrub.

Cotoneasters Important.

The cotoneasters form an important group, but it is surprising how many persons think that they are limited to the low-growing type, suitable for topping a wall or a to the more ornamental class. Cotoneaster Franchetti is a wonderful, fine shrub of an open, graceful, bank, and never give consideration drooping habit and cotoneaster Simonsii is another of medium height with an upright growth. If you have never seen these growing you can see a fine planting of them on Portland heights in the little triangular block of ground at Vista avenue and Spring street, for in improving that piece of ground Park Superintendent Keyser has put in one of the most interesting small plantings in Portland. While this is city property under the park bureau, there is one city employe who takes a keen interest in it, although he is not connected with the park bureau, and he is Captain William Kerrigan, the veteran of the fire department, who lives close to this little strip of ground. I have often seen the Gilt who is one of Portland's best-versed naturalists, stop at this planting and study the things which the park bureau has planted there.

I regret space does not permit me to tell the readers of this department of all the interesting shrubs that will prove satisfactory in this locality, but if I attempted that it would be like writing a catalogue for a nursery. This week I have only room to tell you about a few of the deciduous shrubs and next week I will endeavor to make some suggestions about evergreens, but before leaving the deciduous shrubs I want to call your attention to a few others and among these I can mention as flowering deciduous shrubs calycanthus or the sweet shrub, kerria or the double globe flower, dogwood, the Japanese quince, forsythia or golden bell, potentilla, both the yellow and the white-flowering currant, syringa, which of course includes all the lilacs; the viburnum or snowballs, particularly the Japanese type, and also particularly the ororatissimum.

Old Leaves for Fertilizer.

Now that autumn is here and the trees are beginning to shed their leaves and it is time to clean up the garden and get it in shape for the winter, we should also give consideration to saving the valuables. There is nothing of more real value to the garden than the leaves and the garden litter, for as a fertilizer it can scarcely be excelled by any manure or commercial fertilizer that can be purchased. For a number of years Portland wasted thousands of dollars annually by gathering up the leaves and burning them, but when Superintendent Keyser took charge of the park bureau he arranged with the street-cleaning department to save the leaves for him, with the result that the park bureau now has on hand a supply of fertilizer which has cost the taxpayers practically nothing. As to results accomplished you only have to see the wonderful vegetation in our various parks. I think too few of us appreciate the value of the leaves. You will see persons on every side burning them, whereas if they would only put them in a pile and let them decompose they would have wonderful results from their garden next year.

All experts unite in saying that the most expensive element in fertilizers is the nitrogen, yet when we examine the leaves we find they have a greater percentage of this valuable element than almost any kind of manure. Usually the general term of "humus" is applied to this type of fertilizer, and in speaking of this the Garden Guide says: "Humus is the name given by gardeners to decomposing vegetable matter. In many ways it is like dung. The matter may comprise lawn mowings, leaves from deciduous trees and all the odds and ends of vegetative growth that one cleans up or gets from the garden. Too often this material is bundled out of sight or pitched away as useless. It is a gold mine. Have a place for it and accumulate all you can. Turn it over once or twice to facilitate rotting. Every spring spread it on the soil and dig it in or keep it in reserve for particular purposes. If the humus heap has had lime applied to it, it will be still better. Humus darkens soil and dark soil absorbs the warmth of the sun. Humus holds moisture, therefore it is liked by the roots. It opens up a stiff soil and aerates it. Moreover, it furnishes an essential medium for the bacteria that teem in all fertile soils and which manufacture food for the use of the plants. It is invaluable and many derelict soils could be made to yield crops if humus and dung were applied. It is especially valuable on sandy soil."

This brief description, I think, covers most fully and concisely the value of leaf mold. In my own garden I save all I can of grass cuttings, rake up all the leaves, the stalks off plants—that is, the soft kind and not those covered with bark—and pile them together in a corner of the garden. Now and then I throw on top some surplus soil or the cuttings from where the walks are edged and now and then sprinkle over the whole some air slacked lime. A few days ago I gave the pile I had accumulated during the summer its first turnover prior to putting on the fall collection of leaves, and if you could have seen the bottom of that pile you would have declared that it was far superior to any cow or stable manure you had ever seen and also much cleaner to handle.

Improving the Compost.

Also during the summer, not having any stable manure convenient, I scattered over the various layers of grass cuttings and leaves a few trowelfuls of sheep manure, and I believe that it is a great aid. But, taking it altogether, the leaves are our friends when they fall, just as they are our friends in the summer when they protect us with their shade. Miss Florence Holmes, the landscape architect of the park bureau, has been recently making considerable research into the matter of leaves as fertilizers and has discovered some interesting things. In connection with her research she consulted with Professor J. S. Jones, chemist of the Oregon experiment station at Corvallis, who wrote her as follows: "Leaves have considerable value for fertilizing purposes. They are rich in lime and contain also quite a large amount of potassium. The best suggestion I can offer you with reference to their use for fertilizing purposes is that a compost should be made of them as they are raked up in the fall. The compost is then ready for use in splendid condition early in the spring. This procedure enables one to get rid of an unsightly lot of material that really is of value for fertilizing purposes, and by all means ought to be conserved. To make a compost leaves and any other organic matter are piled in layers with fresh rich soil and the whole thoroughly wet down so as to start fermentation and rotting processes. If this manner of getting rid of fallen leaves is systematically followed, there is practically no waste and a splendid organic fertilizer is available for us in the early spring."

Rich in Nitrogen.

Miss Holmes in her research work on leaves and compost has compiled an interesting table showing the amount of calcium oxide, a most important element, in various kinds of leaves, and from this table shows that the maple and elm trees, of which there are possibly the greatest number in Portland, rank very high, but another interesting table which Miss Holmes has compiled shows the nitrogen, the phosphoric acid and the potash in leaves and various straws. From this, for the benefit of the readers of this department, I am going to extract her information on leaves, which shows that they contain in pounds for each ton the following: Nitrogen, 15; phosphoric acid, 3.2, and potash, 6. Unless you are familiar with the analysis of a fertilizing agent these figures may not convey their full value, but when the comparison in percentages is compiled it demonstrates that in nitrogen leaf mould contains nearly twice as much as does cow manure, and the same also holds good for phosphoric acid, but in the matter of potash the leaf mold has only about half as much as cow manure. This lack of potash can be supplied by the addition of commercial potash if you think your soil needs it, but the main thing to bear in mind is that leaves and garden litter are of value, therefore save, them, pile them in layers, not in heaps, out in the open where the winter's rains fall and next spring you will have a good assistant in your garden.

My friend the retired gardener, came around during the week with another suggestion that may help some of the amateurs. "It will not be long," he said, "before we have frosts and I want to warn the amateurs to watch their dahlias and gladiolis and dig them before there are very heavy frosts and the ground freezes. Usually after the first killing frost we have a mild spell and that is when you should dig your dahlias and gladioli and prepare them for winter storage. It is very essential that you should dry the tubers and bulbs a few hours before putting them in the basement or root cellar. If you do not have a root cellar store the bulbs in the cellar but as far away from the furnace as possible. I also want to suggest that when you dig your dahlia clumps turn them upside down so the moisture will drain out of the stalks. If you do not do this you run great chances of decay starting during the winter in the tuber."

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The tulip family is growing and the latest novelty to come from Holland has been named the Mendel type. These are hybrids resulting from a crossing of Duc von Thal and Darwin tulips. They have been rewarded with many prizes in Holland but whether they will do for garden planting I have not heard, for they were developed with the idea of bringing out a new tulip with satisfactory forcing qualities and for cultivation in greenhouses. Some of the new tulips have arrived in Portland and we will have an opportunity to study them at first hand in the spring.

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Some time ago I had a letter from a friend who told me of some interesting experience in floral surgery and, as some of the readers of this department may be confronted with similar problems, I reproduce the letter for their information:

It often happens that some cherished plant is broken, either by accident or the wind. Usually it seems there is no alternative but to remove the broken portion and this sometimes destroys the shape of the plant. Broken plants can frequently be restored by surgery, the chief implements of which are chewing gum, soft wrapping and matchsticks. I have successfully operated on gladioli this year, a high wind having bent over some of my choicest varieties before they had bloomed. The stalks were not broken, but they refused to stand up, and as they could not be very well tied in a proper position to a stake I took some narrow pieces of wood about four inches long and used these for splinters, wrapping them fast to the broken stalk with soft cloth. In this way the flower stalks were made to stand up erect and came into full bloom. Another time I had a large branch of a fine tree fuchsia injured so that it was just hanging by a few threads. I restored it to its place and then plastered the broken joint with chewing gum and then made a sling of soft cloth and this held the broken parts together until they had healed. Last year I was called upon by a friend to doctor a double compound fracture in a large geranium. I first carefully propped the branch into its natural position and then a strip of soft old muslin was dampened and carefully bound around the break. Over this bandage was arranged three splints in the shape of burned match sticks and over these another wet bandage was placed and sewed. All buds were removed from the branch so that all the vigor could go toward healing the wound. The bandages were kept wet and in the plant shaded. In doing plant surgery, that is, repairing breaks and fractures, all the leaves except the upper ones should be removed and all flower buds taken away. The plants should also be kept in the shade and well watered.

Problems of the Garden.

Will you please tell me what is the matter with my roses? I sent you two flowers. The bush the smaller bud was taken from has always been affected more or less for the last two years and few of the buds have opened properly. The other has been that way the last few weeks. I have a hibiscus Boule de Feu on the west side of the house and a yucca filamentosa on the north side. They have been out two years but neither has bloomed. Do you think they are shaded too much? MRS. T. M.

Answer—I doubt if the smaller rose will ever prove satisfactory in your climate and soil as it is not a variety which I would recommend for general garden cultivation. If you have never had satisfactory flowers from it for two years I would take it up and destroy it, for there are too many good roses to waste time, energy and garden space on those which will not do well. As to the other rose it is probably suffering from a local climatic condition, as I have roses in my own garden which are acting in the same way. I think you will find this rose will be all right next spring. As to the hibiscus and the yucca they require quite a time to get established before producing flowers. In my own garden I have a yucca which flowered this summer for the first time after being out three years. It is planted on the north and under a wide spreading mountain ash tree. I do not think that either your hibiscus or the yucca get too much shade. Give them time and I think you will get satisfactory results.

* * *

I have heard that the little plants which we see at so many places in Portland and particularly in rock gardens and called "snow-on-the-mountains" are poisonous. Can you tell me if this is so, and is it safe to have it in the garden? MRS. J. D. B., Westover Terraces.

Answer—"Snow-on-the-Mountains" is a member of the Spurge family and nearly all of this group have a milky fluid in them which is an irritant and therefore is classed as a poison. I recently described in this department. Euphorbia marginata which is a member of the family and it is probably more poisonous than some of the others, in fact, I know of one florist who suffered quite distressingly from handling this Euphorbia. Milkweed is another member of the Spurge family and we all know that the milky juice from it is quite an irritant. I have never heard of any one suffering severely from the poisons of these plants, but of course some persons are more susceptible to such irritants than others. Geraniums frequently will poison persons and I have known of cases where the suffering has been quite serious. The oboenics primroses to many persons are very poisonous, yet there are many of us who would not want to do without their bright little flowers. To those who suffer from plant poisons I suggest that they do not handle such plants. I think you will find that the "Snow-on-the-Mountains" has little effect and if you use garden gloves will never be bothered by it irritating.

INTERESTING PLANTING AT NINETEENTH AND WASHINGTON STREETS.

IN PORTLAND CHURCHES

(Continued From Page 4.)

"The New Birth"; Friday, "Our Wonderful Bible."

A number of noon meetings will be held in industrial plants the coming week. On Monday noon at the Inman-Poulsen Lumber company; Tuesday noon at Multnomah Lumber & Box company, and Thursday noon at the Jones Lumber company.

* * *

At the Kern Park Christian church, Forty-sixth avenue and Sixty-ninth street, a special Bible school session will be held at 9:45 A. M., followed at 11 o'clock by the public worship. Rev. J. F. Ghormley, D. D., will take for his theme "The Ressurrection As Taught in Christian Baptism." His evening topic will be "The Fall of Babylon." The chorus, under the direction of Mrs. May Vail Billingsley, will give special selections.

* * *

This morning at the Advent Christian church on Second street, between Hall and Lincoln streets, the pastor will speak on the subject, "The Unspeakable Turk in the Light of Prophecy." Next Sunday his sermon topic will be "The Second Coming of Christ." Valuable information has been received as a result of a canvass of the city in the vicinity of the church and the officers of the Sunday school will make special effort to care for those who will become members as a result of the follow-up work by the pastor and his assistants.

* * *

"The proposed law to compel parents to send children to public schools" will be the subject of Mr. Elliott's sermon this morning at 10:30 o'clock at the Church of Our Father (Unitarian), Broadway and Yamhill. The same question will be discussed at 12 M. by the men's class under the leadership of Dr. Edward O. Sisson. At 7:30 P. M. the Young People's fraternity will discuss "The Press in Our Present Day Civilization," led by Austin Hutchinson. On Wednesday, October 18, the federated clubs of the Women's Alliance will meet at 10:30 A. M. and the postoffice mission Thursday at 3 P. M.

Man Could Not Eat Anything

Mr. Mervin Could Eat Nothing--Not Even Fruit

"I suffered for six years from stomach trouble and could not eat anything—not even fruit. I took a carload of pills. I have now taken two bottles of Adlerika (intestinal antiseptic) and can eat anything. I could write a newspaper full about Adlerika and certainly would not be without it." (Signed) H. C. Mervin.

Intestinal Antiseptic.

There is now offered to the public a preparation having the DOUBLE action of an intestinal antiseptic and a COMPLETE system cleanser. This preparation, known as Adlerika, acts as follows:

It tends to eliminate or destroy harmful germs and colon bacilli in the intestinal canal, thus guarding against appendicitis and other diseases having their start here.

It is the most complete system cleanser ever offered to the public, acting on BOTH upper and lower bowel and removing foul matter which poisoned the system for months and which nothing else can dislodge. It brings out all gases, thus immediately relieving pressure on the heart. It is astonishing the great amount of poisonous matter Adlerika draws from the alimentary canal—matter you never thought was in your system. Try it right after a natural movement and notice how much more foul matter it brings out which was poisoning you. In slight disorders, such as occasional constipation, sour stomach, gas on the stomach and sick headache, one spoonful Adlerika ALWAYS brings relief. A longer treatment, however, is necessary in cases of chronic constipation and long standing stomach trouble, preferably under direction of your physician.

Reports From Physicians.

"I congratulate you on the good effect I had from Adlerika since I prescribed it." (Signed) Dr. L. Lasciala.

"I have found nothing in my 10 years' practice to excel Adlerika." (Signed) Dr. James Weaver.

"I use Adlerika in all bowel cases. Some require only one dose." (Signed) Dr. F. M. Prettyman.

"After taking Adlerika feel better than for 20 years. Haven't language to express the AWFUL IMPURITIES that emanated from my system." (Signed) I. E. Puckett.

Adlerika is a constant surprise to people who have used only ordinary bowel and stomach medicines, on account of its rapid, pleasant and COMPLETE action. It is sold by leading druggists everywhere.