A CHAIN consists of a number of links united together to serve a common purpose. Geographers speak of a chain of mountains, meaning a number of peaks rising from the same elevated tableland. Scientific men speak of the chain of life, in which all the different forms of life, from the humblest to the highest, from the moss to the oak, from the animalcule to the elephant, form separate links, joined together by close vital relations. Darwin has given a most striking example of this chain of living forms, showing how the one is dependent upon the other, and that if one be lost or broken the whole chain is made useless. He tells us how the white clover in the neighbourhood of a certain town disappeared from the fields; and the reason he gives is that there were no humble bees to carry, in their search for honey, the pollen or fertilizing powder from one flower to another. And there were no bees, because the field-mice destroyed their nests and ate their honey and young grubs. And the mice had increased, because the cats that would have kept them in check were themselves killed by the street-boys in the town. Thus the disappearance of the clover in the field outside the town was caused by the disappearance of the cats inside it. These two ends of a wonderful chain were united by intermediate links, which most people would never have thought of, and if the one link was broken, all the rest were made of no avail. This striking correlation of forms and forces, producing results altogether different from any that one would have anticipated, is expressed in a very quaint and homely way, in the well-known nursery rhyme of “the House that Jack Built.” As Shelley, with the far-reaching instinct of the true poet, says,—
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"Nothing in the world is single;
All things, by a law divine,
In one another's being mingle."

All God's works are closely related; and the Apostle Paul expressed a great scientific truth, which men have only found out in its fullest significance in these last days, that all things work, not separately, but together for good.

The prophet Hosea gives a most remarkable example of one of these chains of connexion between the things of Nature. He says: "And it shall come to pass in that day, I will hear, saith the Lord, I will hear the heavens, and they shall hear the earth; and the earth shall hear the corn, and the wine and the oil; and they shall hear Jezreel." 1

This language is highly poetical. Dead things are represented as living and having the power of speech and personal action. This is in accordance with the faith of childhood, which believes that nature is not dead but living, that it is ruled not by physical forces, but by spiritual powers; a faith which grown-up people lose, but to which we need to be brought back if we are to realize that the whole world of nature is full of the presence of God, and that He moves and acts in everything we see. A picture is presented to us in the text of the whole process by which our food is procured. It leads our thoughts all along the chain of cause and effect, from man through Nature up to God.

Let us begin, then, by examining this wonderful chain at the most important point. Let us take the highest link first, contained in the words, "I will hear, saith the Lord." The earth is a gigantic phonograph, whose varied voices are communicated along the whole line of natural means to the ear of the Almighty. A great cry for help goes up continually from earth to heaven, from multitudes of creatures that have no language but a cry; and the Lord hears that

1 Hosea ii. 21, 22.
cry, and His providence gives them their meat in due season. He opens His hand and satisfies the desire of every living thing. But in the text what the Lord is represented as hearing specially is the cry of the human beings whom He made in His own image, and endowed with dominion over the world. In the fourth petition of the Lord's Prayer we are taught to ask that God would give us our daily bread. Our bodily life is one of incessant change. Day by day our bodies wear down with the friction of life, and portions of our frame become effete and are eliminated from the system. Day by day fresh material is formed, exactly replacing the wear and tear of each day. And the means whereby this reparation is maintained is the assimilation of appropriate food, taken into the circulation in sufficient quantity and at duly regulated intervals. And for this continuous supply of food for our continuous necessities we pray day by day to God.

Now it seems strange that we should be obliged to have recourse to prayer for what appears entirely under our own control, and is the result of our own labour. The procuring of our own food seems more than anything else within our own reach. We do so much to produce and earn it, that we are apt to think of no other agency in connexion with it but our own. And yet, when we are taught to pray to God for it, we are taught the true source from which it comes, and our own helplessness and dependence.

We cry for food, and the Lord says, "I will hear." He knows that we have need of food, for He has so made us. He has created food convenient for us, and He has made provision in the arrangements of Nature and Providence for the supply of the food. He does not give it to us straight out of His own hands. He does not rain it down from heaven, as once He did the manna in the wilderness. He bestows it upon us by intermediate agencies. God is emphatically the God of law; He always works by means
and secondary causes. And He gives us our daily bread, when we cry to Him, not arbitrarily or capriciously, but by and through the wise and beneficent instrumentalities which He has appointed. The etiquette of the Spanish court is so elaborate, that in order to get the smallest service performed for her, the queen has to communicate through so many functionaries that sometimes the necessity for the service is over before it can be rendered. And in some of our own departments of state, a petition has often to go through so many officials, that it takes days and weeks before it reaches the proper quarter, or secures the desired answer. But the household of Nature is no such circumlocution office as that. Every instrumentality is carried on by God's direct working. He is the living personal source of every force and form, of every life and movement in the universe. He works not merely at the extremity of the chain, but, like the electric spark, His will traverses and pervades the whole range of cause and effect, and concentrates and glows at the point of action. Each link fulfils its own special and relative purpose by the power which He imparts to it. The corn and the wine and the oil hear the prayer of man; and the earth hears the prayer of the corn and the wine and the oil; and the heavens hear the prayer of the earth, and the Lord hears the prayer of the heavens.

He is the only Potentate, the great Executive by which the laws of Nature are carried out. There is no inherent, essential power in any object or force of Nature; power belongeth only unto God. The snowflake leads us to the sun, and our harvests lead us to God. It is He who crowns the year with His goodness, who makes the seed germinate, and the earth nourish its growth, and the sun ripen its fruitfulness. Not by a winding-up clockwork process, the accumulated force of which renders unnecessary any direct control, does He perform the work,
but by constant interposition all along the chain of causation from the first to the last link. What is this but a great process of evolution—evolution opening up to us a very wonderful vision of the way of God in the creation and in the ruling of the world. Evolution has been regarded with suspicion and dislike by the Church, because it has been too much allied with scepticism. It has been too much regarded as a self-generating, self-controlling process, independent of Divine help. All Theistic ideas have been eliminated from it. But, rightly considered, so far from favouring unbelief, the doctrine of evolution is in reality a true exposition of the method of Divine providence, and gives us a more exalted conception of it. The words of the prophet show to us that the law of evolution, which is just God's method of working, plays a very distinguished part in the ordering of the varied processes of Nature; and that all its details are simply the carrying out of the creative and providential word, "I will hear, saith the Lord."

Let us now proceed to go down this wonderful chain, and look at the second link—"I will hear the heavens." The heavens above us, which in themselves are mere empty space, cry to God, and He fills them with the vital atmosphere, so marvellously compounded as to be suitable to the wants of every living thing. He distributes through it the poisonous carbonic acid gas, which is the food of plants, in such a skilful way that it cannot prove harmful to animal life, the one exhaling and the other inhaling it, and thus balancing each other; and by the currents of heat and cold produces the winds and the storms which circulate the air, and keep it ever fresh and pure, to minister to the necessities of His creatures. He fills the heavens too, in answer to their cry, from the same glorious luminary, with light and heat and chemical power, and diffuses them with exact adaptation to the requirements of the earth, giving more chemical power to the sun's rays in spring for the
germination of seeds, more light to them in summer for purposes of growth, and more heat in autumn when the fruits have to be matured. He produces the seasons with their periods of rest and activity, and the alternations of day and night with their beneficent ministries. In the occurrence of the harvest moon which rises sooner after sunset, and continues to do so for more nights in succession than any other full moon in the year, we have a remarkable example of how God hears the heavens, and makes what we are apt in our ignorance to regard as a disadvantage, in the shortening days of autumn, to work for our good. The old saying that "after Lammas corn ripens by day and night," is literally true. Every farmer must have observed how very rapidly the moonlight not merely whitens but actually matures and ripens his corn. Then again the heavens cry to the Lord, and He fills the thirsty air with latent vapour to satisfy its insatiable drought, and to prevent it from desiccating into mummies all vegetable and animal life. This vapour is always most abundant when it is most wanted by plants. It is condensed into clouds to shade the earth from the too ardent sunshine during the day, and to keep in its heat from being too rapidly radiated into space at night, and thus freezing to death every living thing. He balances these clouds most wondrously in the blue sky, and sends them here and there on their missions of blessing. In all these wise and beneficent ways the Lord hears the heavens, and supplies them with what is essential to the life and welfare of all the creatures He has made.

Let us pass on to look at the next link in this remarkable chain. "The heavens shall hear the earth." The two elements of vegetable life are sunshine and rain; and the earth calls to the heavens day by day for the due regulation of these two potent factors in the production of the harvests of the earth. There is nothing more wonderful in the
scheme of Nature than the way in which the waters of the bitter ocean are employed to refresh and fertilize the parched earth. There they lie side by side, the sea and the land, and the waters cannot cross the fixed line that divides them till the sun lifts them up in a vaporous form into the sky, where they form clouds, and the currents of air convey them to the mountain-tops, and they discharge themselves as mists, rains and snows, which are the sources of the rivers, wells and streams that make the earth green and fertile. The prophet speaks of the rain coming down, and the snow from heaven, and returning not thither, but watering the earth, and making it bring forth and bud, that it may give seed to the sower and bread to the eater. And by the slowest and most continuous of all modes of motion in the glacier on Alpine peaks above the snow-line, and by the gentle, gradual distillation from leaf to leaf among great masses of quaking moss on mountain-tops below the snow-line, the vapours of the sky in the loneliest solitudes return to fertilize the distant fields of man. In those dry and parched lands, where the heavens are as brass and the earth as iron, the soil, cracked and fissured with the baking heat, sends forth from each gaping crevice, as from a blistered lip, a cry to the heavens, and the heavens send down those timely rains without which everything must die. And on the other hand, the cold and spongy earth in northern latitudes, saturated with continuous rain, so that the grain will not ripen in the ear, and the sheaf will not winnow in the stook, and the crop is like to rot on the field, cries to the heavens for the warm sunshine to return, and the drying breezes to blow, so that her face may again smile with abundant fruitfulness. Thus God hears the earth when it cries to the heavens for sunshine or shower, to make its fields green and golden with the food of man and beast. Meteorologists have told us lately how the raindrops are
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formed. The earth sends its dust up into the atmosphere, where it floats about at great heights. It there attracts and condenses the moisture hidden in the air, or stored up in the clouds. And just as a crystal is started in a solution by a nucleus of foreign matter, so each particle of dust in the atmosphere gathers the particles of vapour near it, and rounds them into a raindrop. Thus every raindrop requires a particle of dust to start it, and of course it takes the particle of dust down with it to the earth, and so purifies the air, and at the same time refreshes and fertilizes the earth. Is it not a wonderful thing that the earth should send up to the heavens its dust, and that the heavens should send it down again in the form of the blessed and cleansing rain! God in this wonderful way hears the prayer of the earth when it cries to the heavens, and makes its own dust, the very dust of its dry and parched thirst, to be the means of answering its prayer.

But let us look at the fourth link in the strange chain; "The earth shall hear the corn and the wine and the oil." How wonderful is the way in which the earth is prepared to grant the request of its own products! What vast machinery has been set in motion to form the fields in which our harvests can grow; the sea retiring and leaving dry land enriched with its fertilizing materials; rivers in their overflow depositing their sediment; volcanoes pouring down their lava streams, disintegrating, when cool, into the best of all soils; the glacier grinding down by its slow, heavy motion and pressure the strata of the earth into clay and mud; and the atmosphere weathering the granite rocks into sand, which, by the decay of countless successive generations of plants growing in it, has been converted into rich mould! How wisely have the materials of the soil been mixed so as to produce fruitful earth! Were the soil all of one kind, all limestone, or all clay, or all sand, nothing could grow in it. But sand is found in every field to allow
the fine roots of plants to penetrate into it, and to supply
the flint which strengthens their stalks; lime is also present
to supply the elements of growth; and clay to retain the
moisture and give tenacity to the soil. And these ingredients
are so happily blended in good soil that they do not retain
too much moisture nor part with it too easily, and so regu­
late the degree of heat they acquire that the crop will not
be too backward in spring nor too late in autumn. By the
wise design of the Creator each corn-plant obtains its food
from the soil by means of the tiny mouths at the end of each
rootlet. And before the food can enter these little mouths
it must be dissolved in water and then sucked in; and the
materials of the soil are so constituted that they can be
readily dissolved and assimilated. God has also formed
the stem and the leaves and the fruit of our food-plants in
strict accordance with the weight they have to carry, that
weight being regulated by the attraction of the earth; and
that attraction in its turn being in exact proportion to the
size, density and distance of the sun and plants. It is a
striking thought that the whole mass of the earth, from pole
to pole and from centre to circumference, is nicely weighed
and adjusted to keep our freckled corn in the position best
suited for the growth and ripening of its own grain. Thus
the earth bears the corn, the wine and the oil, and produces
for them the conditions in which they can flourish. The
seed is cast into the earth, and the earth helps it to expand
and develop all its latent capabilities, and furnishes it with
the materials of its growth, so that it brings forth fruit, in
some thirty, in some sixty, and in some an hundredfold.

The last link in the chain is, that the corn, the wine and
the oil shall hear Jezreel. Let us put aside the wine and
the oil—for these do not form part of our food in this western
and northern world—and confine ourselves to the consider­
aton of the corn alone. There are very remarkable things
connected with corn. It is a constant theme of wonder how
God has made the staple food of man to consist of the seed of an annual grass that grows and ripens and fades every year, and every season needs to be sown and reaped anew; how in the various corn-plants man finds all the best constituents of nourishment and vigour; how these corn-plants can be stored for a time of scarcity and transported without injury to the most distant places; how some form or other of them can be cultivated in every part of the world; and how, on the basis of security which they afford, a stable society can be built up, by which the highest arts of life and the noblest forms of religion may be developed. The corn-plants require different conditions of growth. The weather that is fatal to the barley and the oats is life to the wheat. The wheat sends its root deep down into the soil, and through this tap-root it sucks up the moisture of these subterranean depths untouched by the sun's rays. Thus, a drought which can burn up the shallow-rooted barley or oats will not affect the wheat, which rejoices in the fiercest heat and produces the best crop in the hottest summer. We thus see that our mixed crops never get weather that suits them all alike. Plants adapt themselves by slow degrees to the climate and soil in which they are placed, and there is at length a complete harmony of correspondence between them. But we cultivate a number of different plants, with different constitutions and habits, under artificial conditions, and we force them into a brief and sudden correspondence with their environments; and we do not wonder that there should be at times a disastrous revolt. But it is astonishing nevertheless how the different kinds of corn-plants under our changeable skies yield to us season after season a more or less average crop.

The corn needs to hear our prayer year after year; for God has so arranged the supply of our food that the annual harvest of the world will only suffice for the world's annual necessities. There never was a two years' supply, or even
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a year and a half's supply, of the first necessary of life at one time in the world. Every year the barrel of meal is nearly exhausted, and no new supply can be obtained except from the fields that are slowly ripening under the patient heavens. As we approach the season of harvest every year the starvation, which is often within a day's march of multitudes of the human family, is within a few weeks of all. All the other riches in the world, being based upon the riches of the harvest-fields, were as worthless as the notes of the banker without the real goods to represent them. And in having year after year to sow and reap our fields, and in thus having our daily bread measured out to us, and our daily bread only, we are taught in the most impressive way the solemn lesson of our entire dependence upon God.

We have thus examined link after link of the remarkable chain of Nature and Providence described in the poetry of Hosea; and the conviction is forced upon us, that it is God who hears not only the heavens and the earth and the corn when they call, but each one of us when we cry, "Give us this day our daily bread." It is He who, by the operations of natural law, makes the earth yield her fruit every year, so that there may be abundance for man and beast. It is He who, by the operations of laws of social economy—by the trades of the farmer and the miller and the merchant—brings our loaf of bread ready to our table every day. All these things are done by intermediate agencies—by the powers of Nature and the energies of man; but the entire process is superintended and controlled and harmonized by the God of Nature and of Providence, who is, indeed, God over all, blessed for ever. And the Lord's Prayer teaches us, by the petition for daily bread, coming fourth in the series, that it is only when we hallow the name of the great Father of all, and do what we can to make His kingdom come and His will be done on earth as it is in heaven, that we have a
right to ask for the due supply of our needed food and the assurance that we shall enjoy it. “Let the people praise Thee, O God; let all the people praise Thee. Then shall the earth yield her increase; and God, even our own God, shall bless us.”

When the prophet says that the lowest link of the chain is Jezreel—"and they shall hear Jezreel"—he puts us in mind of the strange significance of that name. Jezreel was originally the name of the most fertile part of Palestine, the great granary and corn-field of the Holy Land, the plain of Esdraelon. It then passed to the city which Ahab and Jezebel made their capital, and polluted with the foul worship of Baal, and which, on that account, became accursed and was destroyed with a terrible vengeance by Jehu. But at last the accursed spot of the ancient dynasty drew down upon itself the Divine compassion; and the prophet Hosea was commanded by God to call his innocent child by the name of Jezreel, in token that he should live to see God’s vengeance upon the house of Jehu for his ruthless cruelty, and that the name of the city and place which he destroyed should go back to its original signification, as derived from the beauty and fertility of the rich corn-plain of Palestine, and be a pledge of the revived beauty and richness of Israel. “I will hear, saith the Lord; I will hear the heavens, and they shall hear the earth; and the earth shall hear the corn and the wine and the oil; and they shall hear Jezreel.” The lowest link in the chain of blessing is the old idolatrous city which God had destroyed because of its wickedness. He hears its cry of repentance, and He restores it, and brings back its abundance and prosperity; and because it does the will of God, all things work together for its good.

And is that old act of mercy not full of precious significance to us? The lowest link in the chain by which our yearly harvests are produced is sinful man. We have sinned against God’s mercies; we are unworthy of the least of them;
we deserve destruction from the presence of the Lord. We have done the very thing which drew down judgment upon Jezreel. We have worshipped the powers of Nature—the Baal-god of material resources—and forgotten the Hand that has been feeding us. But notwithstanding He makes His sun to shine upon the just and the unjust, and His rain to fall upon the evil and the good. We, sinful, unworthy as we are, cry to the corn, and the corn cries to the earth, and the earth cries to the heavens, and the heavens cry to God, and God hears and sends us our daily bread day by day, that His goodness and longsuffering may lead us to repentance. Let us remember that we are kept in life by the forbearing mercy and undeserved goodness of God for two reasons—first, that we may turn from our sins to the love of God in Christ Jesus our Saviour, and then that we may serve Him and help to carry on His blessed work in the world. It is for this that the wonderful chain of natural blessings exists. And if by this chain of earthly blessings that concern our bodies our souls climb up to God’s grace in Christ Jesus, then we shall lay hold of that still higher and more wonderful chain of spiritual benefits, link by link, and realize that He forgiveth all our iniquities; He healeth all our diseases; He redeemeth our life from destruction; He crowneth us with loving-kindness and tender mercies; He satisfieth our mouth with good things; He reneweth our youth like the eagle’s, all of which are yea and amen in Christ Jesus to the glory of the Father. And we shall pass upwards successively by the links of the golden chain which reaches from earth to heaven; “for whom He did foreknow He also did predestinate to be conformed to the image of His Son; moreover, whom He did predestinate, them He also called; and whom He called, them He also justified; and whom He justified, them He also glorified.” In the case of each of us, may the chain of Providence, by which our daily bread is secured to us, lead us to lay hold
of the spiritual chain by which we shall obtain the meat that endureth unto everlasting life!

"O Thou, out-topping all we know or think,
   Far off yet nigh, out-reaching all we see,
Hold Thou my hand, that so the topmost link
   Of the great chain may hold from us to Thee;

And from my heaven-touched life, may downward flow
   Prophetic promise of a grace to be;
And flower, and bird, and beast may upward grow,
   And find their highest linked to God in me."

HUGH MACMILLAN.

INTERPRETATION OF ROMANS VIII. 33, 34.

Among the minor questions of New Testament exegesis, there is no one which is more interesting than that which bears upon the proper punctuation and translation of this passage. The first inquiry which occurs is: Are the words, Θεὸς ὃ δικαιῶν, to be viewed as affirmative or interrogative? and is the rendering consequently to be, "It is God that justifieth," or "Shall it be God that justifieth?" If the former view be accepted, the words are to be regarded as an affirmative answer to the challenge contained in the previous clause of the verse; if the second be preferred, the words must be taken as a virtual redactio ad absurdum—a strong interrogative answer to the preceding question, implying the utter impossibility of entertaining for a moment the idea suggested by the opening clause of the verse.

And next, according as the one or the other of these views is adopted with respect to the clause referred to, will almost certainly be the conclusion reached in regard to the remaining portion of the verse. The interrogation, τίς ὃ κατακρίνων, will, in one case, be regarded as affirmatively