

brought in by comets which have become disintegrated? And so light-pressure raises once more an old and still unsolved problem."

## LIFE MORE THAN CHEMISTRY

THE CLAIM that life is a mere series of more or less complex chemical processes is disputed by a writer in *Cosmos* (Paris, July 9), whose signature, "Dr. L. M.," suggests the name of Leon Meunier. Life, he says, has processes that are distinctly physicochemical, but it is not itself such a process, or even the sum of such processes. It is an idea—a tendency—something higher than or apart from physics or chemistry. The writer holds that there is a something called "life" or "vitality" that has special functions of its own, and that life is not simply a very complex combination of forces and functions whose laws are known to us from their action on unvitalized or "dead" matter. It has been said, for instance, that every so-called "vital" peculiarity is shown in some degree by dead matter. Man, for example, takes his origin from his parents, he assimilates nourishment and grows thereby in their likeness. All this, however, crystals—bits of salt or mineral—do also. Says Dr. Meunier:

"Crystals also, it has been said, come from other crystals: they have determinate and individual form; they increase; but it is only an abuse of metaphor to speak of their old age, or death, or especially of their nutrition.

"Something beyond form and chemical composition distinguishes the living creature from its dead body and from brute matter. The reactions that take place within the tissues are not essentially different from those observed in our laboratories, but what a difference in their mechanism! Along the digestive tube starchy matter is solubilized, fats altered, albuminoids rendered assimilable; but the organism secretes the fluid appropriate to the food. The dog to which we give meat does not secrete the same gastric juice as if he had been given soup. . . . The living creature is complex and mobile, while remaining a unit—an individual.

"Claude Bernard recognized and well described this characteristic of life. 'Life,' said he, 'is an *idea*: it is the idea of the common result for which all the anatomical elements are associated and disciplined; the idea of the harmony that results from their concert, of the order that reigns in their action. The living machine is characterized, not by the nature of its physicochemical properties, but by the creation of the machine according to a definite idea. This grouping takes place according to the laws that govern the physicochemical properties of matter, but what is essential to life's domain, which belongs neither to physics nor to chemistry, is the directing idea of this vital evolution.' . . . . .

"Vital phenomena can thus not be identified with physicochemical. Biology remains a distinct science.

"In a remarkable pamphlet on 'Creative Evolution,' the philosopher Bergson brings out this distinction very clearly. He says:

"The living body has been isolated and shut in by nature herself. It is composed of heterogeneous particles that are supplementary to each other. It accomplishes diverse functions that imply each other. It is an *individual*; and of no other object, not even a crystal, can we say as much, since a crystal has neither heterogeneity of parts nor diversity of functions.' This author develops the reasons that prevent us 'from assimilating the living creature, a naturally closed system, with systems isolated by our science.' He asserts that there is an 'original impulse of life, passing from one generation of germs to another. . . . Life is tendency, and the essence of a tendency is to develop in the form of a sheaf, creating by the sole fact of its increase, diverging directions among which it distributes its impulse.' He shows 'each generation resting on that which follows it. . . . The living being is always in a transition state, and the essential feature of life lies in the movement that transmits it.'

"What is the essence of life? I shall not attack this problem. Barthez himself, the physician-philosopher who is the father of the vitalist doctrine, said in 1792, in a great discourse on the vital principle: 'The best way to philosophize, that at least which is a useful exercise for the mind, consists in neglecting

the essence of things and discussing the connection and relations of phenomena.'

"Science is made up of disjunctions and connections. I have tried to show in what respects the vital phenomena resemble those of physical chemistry and in what respects they are distinguished therefrom.

"We leave words to the metaphysicians."—*Translation made for THE LITERARY DIGEST.*

## DAIRY REFORM IN MOVING PICTURES

WHILE SOME of the moving pictures are teaching crime others are teaching practical ethics by showing the value of clean milk. The moving picture has been used for some little time in surgical instruction, and in a more popular way in giving information about industrial operations. More recently it has been enlisted in the cause of hygiene and sanitation. A representation of "The Filthy Fly," given under the auspices of the American Civic Association, has attracted much attention and has doubtless impress many persons on whom the written word would have had no effect. Now we are informed by *The Journal of the American Medical Association* (Chicago, August 13) that a moving-picture playlet illustrative of the dangers of impure milk is in preparation. We read:

"Camera men have been snapping unhygienic farms to this end. The first scene represents the son of an old-fashioned, bacteria-despising farmer returning to the old homestead with his wife and little boy. The filthy cow-barns, the open pails of milk receptive to dust and flies are depicted with unsparing realism. The son, who has imbibed wholesome education in hygiene protests passionately against the old order, but in vain, whereupon the young couple pack their trunks, leaving the old farmer in tears over the deserted baby-carriage of his grandson. The rural scene is then changed to an urban one. The formerly happy home of the old farmer's son is grievously distressed because of the baby's illness. The family doctor shakes his head and, pointing to the milk-bottle, indicates plainly the cause of the illness. The grief-stricken son writes to his father (letter flashed on the screen), who comes in haste, and finds, to his great anguish, that the bad milk has come from his own farm. Emotional climax! The play, however, ends happily: the farmer's barns are shown repainted and wonderfully refurbished, the cows washed, the dairymen in white suits presiding over now impeccably sanitary functions. The little patient? Evidently the family doctor has done something more than shake his head; for, miraculously restored to health, the little boy, held by his repentant grandparents, watches with interest the hygienic proceedings. Such a representation might amuse the highly intellectual, but it should certainly be of value in reaching that part of the community which would take it seriously and which would be impressed by the scientific lessons embodied in it."

ROBBER CRABS—An interesting account of the robber crabs of Christmas Island has just been presented to the London Zoological Society by Dr. C. W. Andrews. He exhibited a photograph showing them climbing trees—a habit often doubted. Says *Knowledge* (London, July):

"They simply walk up, clinging by the sharp points of the walking legs, hardly using the large claws at all. They are easily frightened and 'scuttle off backward, propelling themselves with their long anterior legs in a series of ungainly jerks. They seem quite conscious of the comparative defenselessness of the abdomen, which they endeavor to thrust under logs or into holes among the roots of trees.' But they never carry any protective covering. . . . At Christmas Island they ate fruits of various kinds (such as sago palm and screw-pine) and carrion of all sorts. True to their name they were a great nuisance, stealing from the camp at night anything that seemed edible; almost anything, indeed, that had been handled—cooking-utensils, bottles, geological hammers, and clothes. Dr. Andrews complains that he had a geological hammer practically ruined by having its handle splintered in the powerful claws of one of these creatures."



## LACK OF REVERENCE FOR THE CLOTH

**R**EVERENCE is said not to be numbered among the gifts and graces of the young of to-day. The church, religious service, and the ministry are stripped of the mystery or sanctity that once enshrouded them, and to the eyes of the young they are no more than any secular office or personage. While deploring this change, Dr. J. S. Wrightnour, writing in *The Baptist Commonwealth* (Philadelphia), thinks it largely the result of wrong examples set the young by their elders, and too often by ministers of the gospel themselves. Rehearsing some cases wherein the minister himself must bear the responsibility through his sacrifice of the dignity of his office, we read this:

"I have known, during sessions of associations, or other gatherings of that character, such a buzz of laughter and small talk among the ministers in the vestibule as seriously to disturb the religious services in progress in the adjoining room, which the gossipers should, indeed, be attending. I have known ministers in the pulpit during public worship to be whispering together, or a pastor in a prayer-meeting hunting a hymn during a prayer by some other brother, or moving about from place to place, or sitting, with head bowed, indeed, but with eyes wide open and thoughts evidently elsewhere. Yet the people are expected to be reverent and silent. I have known ministers so 'genial' as to divest themselves of nearly all dignity in their relations with the people, perhaps seeking thus to court popularity—and, indeed, receiving it. I have even known some such very popular fellows to retail slightly off-color stories in some smoking-room (with deep shame I say it) and to be familiarly known everywhere by their first names. I knew of one who was known far and near only (let us say) as 'Fitz'—his name (let us say) 'Fitzpatrick.' All this at the cost of a certain sacrifice of the true influence of the sacred office. Not only is influence to be considered, but right influence; and something better than influence—POWER, sacred power. Many years ago, Jacob Knapp, who, in his day, was instrumental in the conversion of many thousands, was a guest at the home of one who was afterward a member of my congregation. From her I learned that he was always genial and friendly, but he went from his room (where, for sometimes half a day, he insisted on being undisturbed) to the pulpit very much as Moses came down from the mount after he had talked with God. In another house in the same congregation, many years after the days of Knapp, two alleged evangelists, working together, were guests. Before and after 'pleading for souls' with tears more or less real, in the meeting, they made a practise of spending several hours in their room amid tobacco-smoke, telling all sorts of stories, with peals of laughter. Is it any wonder that 'converts' oftentimes know little of the real power of the gospel, and as for reverence for the ministry, they have it not?"

Parents next come in for reminders of their part in contributing to the depreciation of the sacred office:

"When a minister is dissected before the children in the tea-table gossip of the home, his sermons torn to pieces after church service at the dinner-table, his mannerisms laughed at before them, how can those children be expected to have that reverence, or even respect, for the pastor, which is the due of every one who fills that office? And when those children, in turn, become critics, and dislike to go to church, those parents will say that the minister has 'lost his influence over the young people' and they are the very ones to demand a 'change' in the pastorate. Yet when some pastors are so indiscreet as to spend their time in criticizing others, in so-called pastoral calls, what may they expect but to receive such parthian arrows themselves?"

"How often do we hear of members of churches, let us hope only in the spiritual backwoods, talk of 'hiring' a pastor; as if he were a mere day laborer, or clerk, in their employ! They are hired by Jesus Christ, and by him alone; and are, or should be, the hired servants of no man. How often, too, do we hear the disrespectful expression 'to get rid of' a pastor, as if he were some sort of a noxious insect. I once heard a young person saying of a certain church that 'they were trying to 'get

rid' of their pastor, as they thought he was getting too old.' By the way, the usual plan of disposing of aged ministers, who have survived their usefulness, is much the same as that employed with decrepit horses, viz., turn them out to grass, to browse on the green sides of the stones. And a favorite plan of securing a pastor is scarcely more reverent or respectful. It is to 'trot out' a succession of ministers in the pulpit as 'candidates,' note their paces, their action under the saddle, and examine their teeth. Seriously, there seems to be no notion of the real disrespect to a sacred office in the use of these terms, or of these methods."

The writer then ironically presents some rules for "killing a minister," useful to such who feel that with loss of reverence for the office there ought to follow annihilation of the pastor himself. We read:

"Criticize him mercilessly.

"Never praise him.

"Pray at him, never for him.

"Keep his wife in hot water.

"Some have found keeping his salary in arrears very useful also.

"As 'turn about is fair play' it might be added that a good plan for a pastor to kill his influence, and his congregation, is much the same:

"Criticize them unmercifully.

"Never praise them.

"Pray at them, not for them.

"Have a wife that will keep everybody in hot water.

"And many have found that always harping on the question of salary is very useful also."

## TO PUT CHINESE MISSIONS INTO CHINESE HANDS

**A**N ALTOGETHER novel event in the history of Chinese missions was witnessed in Hartford last week when twenty young Chinese women gathered to take part in a convention of the Chinese Christian Students' Association in North America. As reported in the press, an interesting feature of this group is that they are all of collegiate rank and are pursuing studies in this country preparatory to their missionary work after their return to China. The meetings of this association, where this group of women discuss the part Chinese women are to bear in China's evangelization, was preliminary to the annual conference of the Chinese Students' Alliance in the East, now in progress. As the *New York Tribune* reports the speeches made at the convention by the American and Chinese speakers, it may be seen that the Chinese sensitiveness to Western direction has not abated. This paper summarizes the speeches as follows:

"The Chinese—To avoid suspicion among our people in regard to Christianity and to preach the gospel according to the needs of China, the work must be done by and for the Chinese. We must not allow an office in New York to dictate the acts of the churches in China.

"The Americans—We shall be glad to withdraw and let you have independence in the Church as soon as you have the intellectual, spiritual, and financial strength to carry out the work that will be a glory to the Father who is in Heaven and a credit to you as Christians in China.

"The Chinese students—We shall try to educate ourselves and encourage others to be church leaders so that the words 'missionary to China' may become a phrase of historical past."

Another light upon the interrelations of East and West, so far as they affect Christian missions, is furnished by Rev. W. Nelson Bitton, an English missionary of Shanghai. In *The British Congregationalist* (London) he points out that, "while the force of a progressive ideal has brought China very largely into tutelage to the West, other forces have disturbed the