

The Open Court

A MONTHLY MAGAZINE

Devoted to the Science of Religion, the Religion of Science, and the
Extension of the Religious Parliament Idea

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CHICAGO

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GASPARD MONGE.

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SCIENCE ON THE CONDUCT OF LIFE.¹

BY DR. GEORGE BRUCE HALSTED.

JULIAN HAWTHORNE says that eight million human beings have just starved to death in India for lack of a few opportune rains. Some have answered that he overestimates the numbers, as not all of the eight million are yet dead.

So it may be best to give the unused words of three bicyclers in a brief glimpse at the reality. They say: "Not a hundred yards from this noisy mirth were several hundred poor, fleshless, bone-protruding, cringing wretches who had crawled in from the famine districts seeking a handful of rice from Government relief commissioners or from the missionaries. They were huddled in a compound, listlessly submitting to 'kismet,' and while uncomplaining about their distress, exhibiting small thankfulness for the aid extended them. There was not an agitator amongst them, not a single denouncer of the Government. They simply squatted in corners, their narrow shoulders perched high, their chocolate skins tightly casing their thin, prominent ribs, a look of blank submission on their faces—a spectacle of inert, heedless starvation.

"There were thousands of trudging pilgrims along the way, worn, ill-fed gangs of men and women who had walked hundreds of miles to make their future state secure by bathing from one of the sacred ghats by the side of the sacred city.

"Down this way is a Hindu dragging a goat to be sacrificed to a goddess who, it is hoped, will cure his sickness; a woman is taking flowers as an offering to the god of creation; down by the river thousands of folk are in mute posture, training the mind to

¹ Presidential Address to the Texas Academy of Science.

“forget the world.” “All comers bring flowers and fruit and money, and stretch themselves out before the black stone. And when they have splashed enough water, and tossed enough flowers, and lain long enough on the hard slabs, they go away ever so much better.” This straightforward description of three cycling tourists gives a graphic picture of the pre-scientific solutions offered to the problems of life and the accompanying states of mind ; on the one hand physical and moral torpor, apathy, despondency, resignation ; on the other hand a deliberate forcing of a state of abstraction from external reality and a production of subjective effects by intense introversion of self-consciousness.

This latter is illustrated amongst us by what with rich irony is called Christian Science. A lady Christian Scientist doctor was recently called in by a fond mother to treat a child for boils on the head. Turning upward her rapt face, she began by saying “I see no boils.” How perfectly evolutionary and archaic this method is was emphasised for me by a recent spontaneous exhibition of it on the part of my youngest child, who had just refused his mother’s command to carry a box of matches to his father,

The command being sharply reiterated with threat of dire punishment and the box extended to him, he screamed out, “But I can’t see any box of matches ; I can’t see any box of matches !”

Neither could he, for he was holding his eyes tight shut.

But for those whose eyes actually open on the real horrors of our world, the impulse to the other archaic solution, the resignation, the kismet, the Calvinism, has been so far almost irresistible.

In our free-silver sister republic this summer I was witness to a scene whose piercing pathos no words of mine can adequately reproduce.

At Guanajuato a funeral entered the Panteon. The hired hearse was a man who carried the hired coffin on his head. The funeral procession consisted of three persons ; two graceful, if bare-footed, bare-headed, ragged little girls, sisters of the corpse, and then the poor mother, heart-broken, dazed, who paid the hearse her last poor little silver coin. The shallow grave was just being finished, and so thick is this ground with human remains that a horrid, loathsome, rotting skull, with patches of stinking flesh and hair, was thrown up at our feet. The very earth was putrid, and into this pit the hired hearse, opening the hired coffin, dumped the half-naked body of a beautiful girl.

Not a single word was spoken.

The grave-digger began shovelling in the fetid dirt.

Looking from the face of the agonised mother to the bare, dead feet still protruding from the earth, I felt an appreciation of Tolstoi's solution for the problem of this life—*renunciation*. What these our fellows can never have any hope of, that will we also reject, to share their lot with perfect unselfishness, brotherhood. Says Tolstoi: "The vocation of every man and woman is to serve other people." He dwells with stress on the renunciation of our individual happiness. Wonderful is the clearness, simplicity, sweetness of his ideal. Must we accept also its hopelessness?

Here is a truly marvellous personage. He is an erudite scholar of the classics. He writes English, German, French, and has such a mastery of Russian as no man ever had. He is a profound student of the Scriptures in the original tongues. Himself a count, his father was a noble of most ancient lineage, his mother a princess. His *Anna Karénina* is the greatest novel since the world began. His penetration into the deepest sources, the profoundest springs of human action seems supernatural, uncanny. Yet as outcome of intensest wrestling with the problem of this life, the man of whose works Howells says, "To my thinking they transcend in truth, which is the highest beauty, all other works of fiction which have been written"—this man, winner of the world's adoring admiration, puts off the garb of civilisation, dons the inside-out sheepskin coat or the *moozhik*, renounces wealth, denounces courts, ecclesiasticism, militarism, renounces even *meat*, preaches universal non-resistance, goes to ploughing.

Do not imagine that this great man lacks weighty arguments.

Perhaps no one has attempted to compute the daily cost of ecclesiasticism in mere money. No one seems to notice the extraordinary oddness of paying to maintain an army of missionaries to Mexico to convert people already Christians. But some one has reckoned that the standing armies are costing the world eight million dollars per day, a figure easily remembered by association with Hawthorne's eight million starved-to-death subjects of Victoria, whose jubilee was simply a shockingly expensive military pageant.

Only a short time ago Russia passed through the horrors of a gigantic famine. When I sailed down "mother Volga" toward Samara, the centre of the stricken district, despair seemed still brooding over the land. Even in favored years it is only by heroic toil of men and women, *moozhik* and *baba* together, throughout the brief season, that grim necessity can be held at bay. All ap-

pliances are still of the most primitive kind. I saw new windmills building of precisely the pattern charged on by Don Quixote. I saw a moozhik and a baba threshing their wheat on the ground with flails. I saw prisoners for Siberia marching each between two soldiers with fixed bayonets. Through the streets of the cities I saw drawn at a gallop, as with fire horses, holy images to visit sick patients instead of physicians. On the sides of the cathedrals I saw frescoed the immortal souls roasting in blazing hell forever. The whole atmosphere seemed murky with two associated ideas—*obedience* and *punishment*. These two strictly human ideas, obedience, punishment, are very familiar to us also, unfortunately. If they are to be permanently valid in the real universe, Tolstoi's solution of the problem of life can never be gainsaid.

But there is a something which was given no effect among the data which led to that solution, a something called *Science*, now grown to be a mighty, an all-pervading spirit, which must, which will be reckoned with.

In our own time, through Darwin, it has answered the riddle of the ages, Whence come we? We now accept that we came from lower animals by evolution working through millions of years. To one inquiring where are we? it is Science that presents the telescope, the spectroscope, the microscope. Science cuts us into infinitesimal slips with its microtomes, gets inside our eyes with ophthalmoscopes, looks through us with X-rays. Applied science is beginning to feed the world almost apart from human labor. A moozhik, on an American wheat farm, watching the same machine reap the wheat, thresh the wheat, make bags, pack the wheat in bags, tie them up and deposit them ready for shipment, would be prepared to believe the actual fact that last year we deliberately burned more than a hundred thousand tons of molasses.

The reign of brute strength of the body is doomed even in the barbarous arts of war. The modern Greeks are a remarkably strong athletic race. Witness the fact that a Greek peasant lately won the long-distance race against the whole world. But when these athletes, backed by their knowledge of Greek and by the prayers of the combined Protestant Church, Catholic Church, Greek Church, faced the villainous race who have been horrifying the world by their wholesale murder of Christian Armenians, and inconceivable atrocities to Armenian women and children, behold the noble Greeks exercising all their great running powers to get away from these butchers of Christian women. Oh, for a tiny division of those tiny, polite, intellectual little dwarfs called Japanese! Oh, the con-

sequent howls of those villain Turks! You know the Japanese appreciate the non-Euclidean Geometry.

When I was in Hungary everywhere swords and sabres obtruded themselves. The Hungarian women are beauties gifted with eternal youth. The Hungarian men are big, whole-souled athletes. Their lavish hospitality prevented my saying to them that in real scientific warfare nowadays the sword is of about as much account as a bologna sausage.

Note in the newspapers that what saves the British armies is the Maxim gun; what is breaking the fetters of Cuba is dynamite. Why are the dervishes just now at a discount? Answer: the portable steamboats made in sections and to draw not over three feet of water.

Science will be the great missionary to abolish the slavery of compulsory military service, because the time is coming when a few assistants from the chemical and physical laboratories of the universities will be able to annihilate an army of prize-drilled companies. Good-bye to the soldier, and good riddance!

But even more surely has Science undermined the reign of obedience and punishment in the theory of this world and the world to come.

Some think that a law is an enactment of some legislative body wise or otherwise, and that if you do not obey it you deserve the decreed punishment. But the laws of science can neither be obeyed nor disobeyed. Take as typical the law of gravity, which is that every particle of matter attracts every other particle directly as the mass and inversely as the square of the distance. You cannot obey this law. You cannot disobey it. It is simply a statement of how your material particles act, and nothing can help them or hinder them for a single moment from so acting.

As the man of science sees once for all that no one can disobey the laws of nature, he questions the grounds on which he has been exhorted to obey the fallible laws of man, and the warranty for the terrible punishments, here and hereafter, which he has been declared to deserve. If man is the result of evolution in accordance with natural laws, there was no fall of man, and he scarcely deserved eternal conscious punishment for not hurrying his ascent. Laws that can be disobeyed can be only advice on the conduct of life. Each must be the judge when this advice is inapplicable or should be rejected. The commandment to keep the seventh day, the Sabbath, Saturday, the early Church thought best

to modify by substituting for a breaking of this command a keeping of a new command to keep the first day, Sunday.

Most primitive, most obvious is that absolute commandment: "Thou shalt not kill." It has already been brought to your attention that the governments are paying eight million dollars a day to keep in readiness for wholesale killing of men.

A startling instance of a single man taking this commandment as advice to be weighed, accepted, rejected, was the surgeon hurrying through the mass of shattered, wounded humanity on a great war ship in the late Chinese war. Armed with a powerful atomiser charged with prussic acid,—instant death,—his adverse decision on the advisability of attempting treatment was one quick jet in the face, and the shattered masses of agony, that had been men, strained toward him, stretching their distorted faces toward the instant death. Was the surgeon right? If so, there is no command which may not need breaking. There are only two grounds, then, on which a man may be punished—for the good of himself or for the good of others. But science teaches unselfish love for others, so to harm another is to harm us all. If the advice in any law is good advice, the one who for any reason does not take that advice is to be sincerely pitied, perhaps more deeply pitied than the unmistakable lunatic.

In the high-school building of a thriving Texas city the superintendent showed me a large table and told me with evident pride how he had forty boys leaning over that table at the same time while he hurried around it with his trusty rod administering to each a resounding thwack. The local bank president, whose son was a pupil, extolled the perfection of the training by saying that the instant a boy was commanded he obeyed quick as flash. I answered that nothing could induce me to subject a boy of mine to such volitional ruin. I preferred that my boys should balk automatically at anything that even sounded like a command.

A careful and judicious expert says: "Man's temptation to lie is the most expensive item in all commercial transactions."

The essence of the scientist is an ineradicable passion for verifiable truth.

What example of applied science more obvious than the bicycle? The principle that holds it erect was familiar through the mathematics of the gyroscope. The ball-bearings are elementary geometry, not to mention the tangential spokes, the pneumatic tire, the air-pump, and all the rest.

How substitute a machine for the human type-setter?

At the World's Fair was a machine which imitated the man by actually setting the type, but the solution as seen in the machines in use in this city is vastly different. Instead of type they set moulds for letters, and cast each line from the molten metal.

Beautiful as a fairy tale it is to see them distribute back all these matrices by an application of pure geometry.

The thousands and thousands of perceptive acts, of volitional acts in every small piece of type distribution are saved for higher thinking.

And finally, all this gives but slightest hint of the many ways science now is storing her vast potential of physical and mental energy for application in the service of truth and unselfishness.

Surely her truth will make you free !