

## CHAPTER VI

### THE ONLY THING WORTH WORSHIPING— FORCE

**W**E honor the man of whom we can say —“He does things.” We are not so very discriminating as to whether he does things inherently good, or inherently bad. The James brothers were very popular men among their neighbors, as were Dick Turpin and Robin Hood, among theirs in Merrie England. They did things.

Napoleon was adored because he did things —without reference to whether or not they were good or bad. He murdered France and was adored by France.

Women fawn on the men who beat them. The rape of the Sabine woman is ever ratified by cunnubiality—no Rome fails of population when possessed of men like the ruthless sons of Romulus. The wolf breed conquers by

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force, and love follows—some sort of love. Dogs lick always the hand of a Bill Sikes.

In all ages and everywhere, by a universal instinct, the human being worships force. For it is all there is in the universe worth worshipping. The instincts of men and women are always justified in the court of last resort—the welfare of the race.

The sun has been worshiped more generally and more intelligently than any other natural object. The ancient Peruvians possessed the most striking temple of the sun, but Greeks, Romans, Parsees, Norsemen, Persians and all the rest have been sun-worshippers. Our day of worship is still Sunday. And if in a really godless world, science were called upon to choose the thing to deify, it would choose force as the god, and could find no such adequate representation of it as the sun.

We used to say that in all the universe, there are only two actualities, matter and force. We now, by the radium discoveries, find that matter seems to be only a form of force. So our minds are brought to confront the apparent

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proof that there is only one thing real, and that is force. If so, the blind worship of force is very close to the intelligent worship of God.

The springs that move every living thing are wound up by the sun. Protoplasm, the only living thing on earth, has movements. These movements exert force. This force comes from the sun. All processes of life, from the blow of the prize-fighter, or the thrust of the lance of Sir Galahad, to the thought that is recorded on this page, or the blossoming of a lily, are the result of cell-activities in plant or animal, and these cell-activities all are made up of impulses from the sun, imparted to the earth through its rays.

The higher types of animals are warmer than their surroundings. Their heat is obtained from inner fires kept burning by supplies of fuel in food. An Eskimo uses whale oil or seal or walrus or fish oil for fuel in his body—he drinks it and eats it. He also burns it for outward heat. We do the same things—we eat oils in nuts, fat meats and salad oils, and we burn it in lamps, stoves and fur-

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naces. Oils are merely stored energy from the sun—solar heat has given atoms a certain twist, and when this twist is freed the resulting kick shows itself in heat. So of starches, sugars and those foods like lean meats which we call proteins. The sun warms us directly; and indirectly he piles his force up into the atoms of foods and fuels, so that we can utilize the power he poured upon the earth eons ago.

We ourselves are alive only because the heat-units which our beings make over into life-force have been stored in the decks of our good ship *Earth* and embodied in us. We are sun-created. We may say we are composed of matter and force. The matter is of the earth, the force is of the sun.

There are black, dead, cold planets in the voids of space among the bright stars of heaven—thousands of them—perhaps millions. They do not shine. When one of them comes between us and a star, the light of the star goes out. Some of them are twinned with a shining star, the dead twin and the live one revolving as though connected like dumb-bells by an

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invisible rod. Some such stars are variable or intermittent, the bright one dimming or disappearing as the dark one comes between us and its shining twin.

These dead suns and dead worlds have lost a great deal of their force or energy. Perhaps some of them still have as much as have we—for our good air-ship *Earth* does not shine as a sun, but only glows moon-like. These worlds, though dark, may be habitable. We do not know. But we can not see how any world can support life, which does not receive from some sun, which is itself too hot with force to be habitable, a supply which the magic slime, protoplasm, may work up into living beings.

The force we get hourly from the sun, we may use as a family uses such an income as a life annuity. All we can get out of it belongs to us, and when we die, as far as we are concerned it stops. If we don't get all we can out of it, we are foolish. We are passengers on the ship—and if we do not use the sunshine, the wind and the waters that flow and surge in

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tides of force all about us, we have ourselves and our ignorance and inefficiency to blame.

But in the decking of the ship—in that thin crust of rock planking that we stand upon, and which separates us from the molten core within, there are bunkers in which are stored force which came to the good ship *Earth* while the forces of the cosmos were preparing it for our voyage. In these bunkers are the bodies, brains and blood of the coming race. These are like deposits in bank, which, when drawn out, are not replenished by new deposits. God opened the account and handed us the Book.

“Increase, multiply and replenish the earth,” said He. “I will send my rays upon you as needed. And in future ages after knowledge shall have been increased, you shall discover the oil, the coal, the gas and the power that comes from falling water. Use the income of the planet freely, and make the most of it. But the deposits which are in the bunkers of the ship I have given, exhaust at your peril. For the bunkers once emptied, will never be refilled!”

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So, while we were savages weak in knowledge and knew not of the smallness or the largeness of our Zeppelin *Earth* we were weak also in power to take from the deposits in the bunkers. We dug a little gold, a little lead, a little zinc and some copper, but no coal, and we knew nothing of the oils and gases beneath us.

As for the forests, we had only weak ways of cutting them down, or of sawing the logs, or of carrying them when cut. Only a small part of the deck-dust soil was tilled. Suddenly—in less than a century—science smiled on us, and we found ourselves blessed—or cursed—with knowledge and the power to take out the deposits. We have found out how to draw checks on the bank God established for us, and which the sun filled in all those ages, but is now filling no more.

Shall we use the power unrestrained by the knowledge which comes with it?

It is the old story of the freedom of the will—the ethical riddle of the sphinx. The young world has come of age—and we present pas-

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sengers are the world. Are we drawing checks recklessly—wasting the deposits God gave to us and our progeny—or, are we conserving them? Let us see!

How many readers ever heard of a cement boat? I don't mean a boat loaded with cement, but one made of it. Such craft are in existence and successfully used on some of the waterways of Europe. They are easily mended if stove, and can be made in compartments so as to be unsinkable.

Once there was made a huge cement craft in the form of a raft—only it was many miles long. It was reinforced to some extent, but was really not subjected to much strain, on account of being so much longer than any wave, and every square yard of it being upheld by the water, just the same as every other square yard. The strain was no greater than that upon an island. A rim was made about the edge, and the decks filled in with good rich earth to the depth of several feet. Great caves were made running through the cement



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island, which were at the same time air-tight compartments, and roomy cabins for all sorts of purposes—mostly living-rooms. The earth was planted in various trees and crops, and in a warm climate—which was the sort for which it was intended—the artificial island could produce all the food the thousand men and women on board needed. The raft was made with a lagoon in the center, like a coral atoll, and there was a braced passage for the entrance of ships.

It was built for a floating breakwater and dry dock for a Pacific location, where the nation building it had no harbor and no right to anchor permanently inside the three-mile limit. It was really a floating harbor and colony.

Running through the cement structure were certain great chambers, which were filled, some with coal and some with oil and some with compressed gas, for fuel, light and power purposes. The coal was dumped into these cavities, covered with gunny sacks and the cement poured over the top to harden, so

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there was no waste room—the cavities were filled chock-full.

This great artificial floating island was lost on its way around Cape Horn, by a storm which wrecked most of the steamers that were towing it and blew the rest away. With all its people—a thousand men and women—it drifted into the Sargasso Sea, where the currents run about the Atlantic in an immense circle, making a great slow whirlpool, out of which nothing ever drifts. It is full of seaweed and wreckage—all slowly drifting round and round and inward toward the center—and has strange fishes and birds all of its own. The thousand people were lost—for the Sargasso Sea is out of the track of the ships that cross the Atlantic.

There was artificial land sufficient to make subsistence easy enough, by a resort to intensive gardening. The trees soon grew so as to make the place beautiful. In fine weather everybody slept in the gardens on deck. The living-rooms below were well lighted with gas, and were really pleasant when the

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weather was rough outside. It was not so bad a place, after all. Here the people lived and married and had children and died and were buried in the green depths of the sea.

One day, it was discovered that the coal in the bunkers was being wickedly wasted. Three-fourths of it were being thrown away—just because it was inconvenient to handle. What was used was burned in such a manner that not half of it did anybody any good; the portion wasted in smoke made life on board disagreeable to all, and worse still, the portion used for making electric light was more than ninety-nine per cent. lost in converting its energy into current! This was one of the first real troubles they had; for they did not know what would become of them when the coal was gone.

A meeting was called. The people on board asserted that they were all equally interested in those supplies on which the well-being of all depended. But those who were handling the coal business refused to admit that the others had any rights in the case. For on di-

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viding up the island when they were cast away, the decks, on which opened the hatches leading to the coal bunkers, were assigned to these coal people—and therefore the coal in the bunkers had passed into private possession, and become private property. The passengers, however, laughed at this theory of private property when it was put forth by the coal “owners”, and took possession of the coal as a part of the common property of all, and began a course of economy in taking out and using it by which they so conserved the coal that when the island was finally rediscovered and the people taken off, there was still a great deal of coal in the bunkers, though several years had elapsed.

The above is an allegory, or as Jesus called such stories, a parable. It is the shortest way I know to tell you the coal problem which confronts us passengers on the good ship *Earth*.

There is only just so much coal in the earth. Does it belong to all of us, or only to those who have deeds to the land above it? I don't

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mean in law—I know what the courts would say—but in real truth and in real fact, by that higher law which forbids the waste of those things on which the race must base its future life? Careful estimates have been made leading to the conclusion that if we keep up the increase in the consumption of coal at our present rate, the supply will give out in one hundred and fifty years. I believe there will be much of coal long after that; but this is certainly true—sometime it must be exhausted if we keep on mining it. That's as certain as death. And we are as wicked and cruel in our waste if we bring this awful catastrophe prematurely on the world ten thousand years from now, as in ten years. Can one escape that conclusion?

The people who are handling the coal business for us on the good ship *Earth* are wasting the coal. From one-half to three-quarters of the anthracite and half the soft coal are wasted in mining. It costs less to take out only that which comes easiest, so a great deal is left to be hidden forever when the props come

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out and the roof caves in. Thus, the companies make more money, and we get cheaper coal than if it were properly mined.

There are nearly a hundred thousand beehive coke ovens in the United States which waste fifty million dollars' worth of the goodness of the coal annually—all the gas, all the tar, all the heat developed in the coking process and all the fertilizer are wasted—fertilizer our hungry soils need so sorely. Ovens such as are used in really civilized nations would save these—and make their owners money. One-twelfth of all our coal goes up in black smoke—or \$40,000,000 a year. Mechanical stokers would save almost all of this. Van Hise says that in one fair-sized plant the smoke-preventing machines save more than a third of the coal. It is certain that this smoke curse could be prevented.

Only one per cent. of the coal's energy is realized in light when burned to make electricity! We should make our lights of other things—water-power, for instance.

In using coal for power, much more could

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be made if the fuel elements were converted into gas and used in gas engines instead of steam engines. It is perfectly well settled that coal converted into producer gas gives more than two and a half times the power that it does when used to make steam. Think of saving two-thirds of the coal burned in stationary steam engines! But it takes better men, more intelligent men, to run such engines. So what we need is more intelligence in the mine owners, more intelligence in engineers, more intelligence and better morals all along the line. We could get along with less than half the coal we burn, if we tried hard. And there is a way by which we might do a great deal better than that.

The big question is, of course, to whom the supplies belong which God has placed in the hold of this good ship *Earth*. Suppose they were threatened by an accidental conflagration, how the coal barons would call on every good citizen to fight for the "heritage of the race!" Why isn't it our heritage when a money-making conflagration is ravaging it?