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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CONTENTS:

Frontispiece. BLAISE PASCAL.

Chuar's Illusion. A Philosophical Sketch. MAJOR J. W. POWELL, Washington, D. C. 577

Blaise Pascal. (1623–1662.) His Religious Philosophy. With Three Portraits. PROF. L. LÉVY-BRUHL, of the École libre des Sciences Politiques, Paris. 582

The Scientific Achievements of Blaise Pascal. Pascal's Arithmetical Machine.—The Mystic Hexagram.—The Arithmetical Triangle.—The Phenomena of Liquid and Atmospheric Pressure. With Diagrams. THOMAS J. MCCORMACK 595

Chinese Fiction. With Illustrations From Original Chinese Works. THE REV. GEORGE F. CANDLIN, Christian Missionary in Northern China. 607

John Caird. An Appreciation. With Portrait. PROF. R. M. WENLEY, of the University of Michigan 629

Prof. Gaston Bonet-Maury. With Portrait. THEODORE STANTON, Paris . 630

Recent French Philosophical Works 634

Notes, Correspondence, Etc. 638

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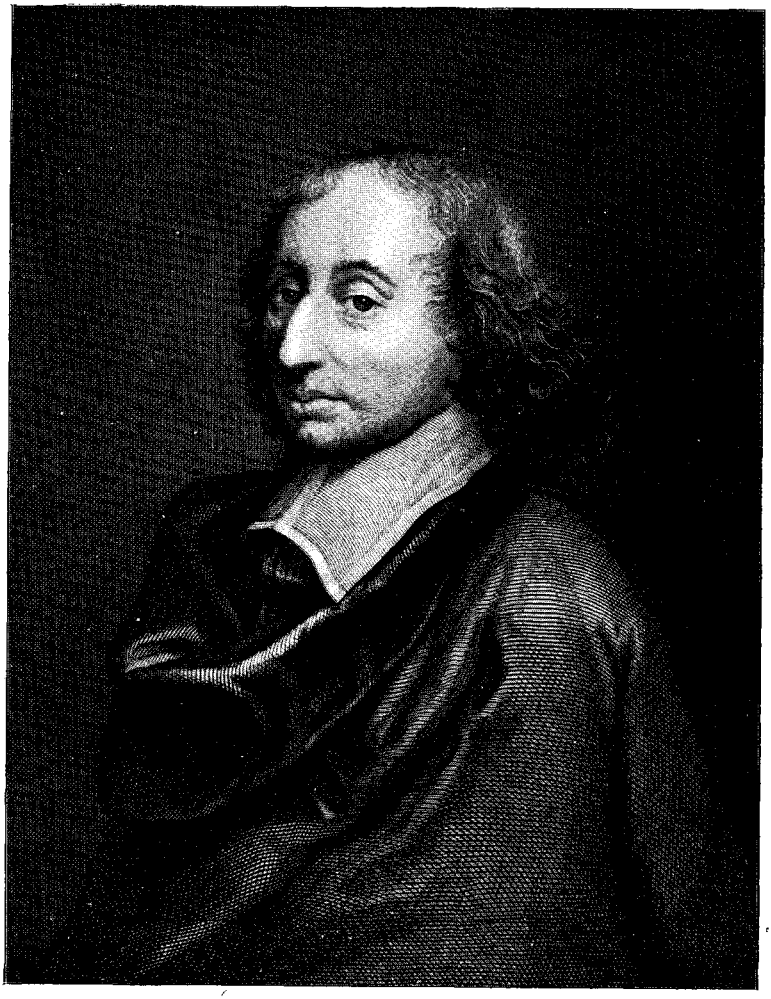

From an Engraving by Ferd. Delannoy.

BLAISE PASCAL.

(1623–1662.)

Frontispiece to the October, '98, *Open Court*.

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CHUAR'S ILLUSION.

BY MAJOR J. W. POWELL.

IN the fall of 1880 I was encamped on the Kaibab plateau above the canyon gorge of a little stream. White men and Indians composed the party with me. Our task was to make a trail down this side canyon, which was many hundreds of feet in depth, into the depths of the Grand Canyon of the Colorado. While in camp after the day's work was done, both Indians and white men amused themselves by attempting to throw stones across the little canyon. The distance from the brink of the wall on which we were encamped to the brink of the opposite wall seemed not very great, yet no man could throw a stone across the chasm, though Chuar, the Indian chief, could strike the opposite wall very near its brink. The stones thrown by others fell into the depths of the canyon. I discussed these feats with Chuar, leading him to an explanation of gravity. Now Chuar believed that he could throw a stone much farther along the level of the plateau than over the canyon. His first illusion was thus one very common among mountain travellers —an underestimate of the distance of towering and massive rocks when the eye has no intervening objects to divide the space into parts as measures of the whole.

I did not venture to correct Chuar's judgment, but simply sought to discover his method of reasoning. As our conversation proceeded he explained to me that the stone could not go far over the canyon, for it was so deep that it would make the stone fall before reaching the opposite bank; and he explained to me with great care that the hollow or empty space pulled the stone down. He discoursed on this point at length, and illustrated it in many ways. "If you stand on the edge of the cliff you are likely to fall; the hollow pulls you down, so that you are compelled to brace yourself

against the force and lean back. Any one can make such an experiment and see that the void pulls him down. If you climb a tree the higher you reach the harder the pull; if you are at the very top of a tall pine you must cling with your might lest the void below pull you off."

Thus my dusky philosopher interpreted a subjective fear of falling as an objective force; but more, he reified void and imputed to it the force of pull. I afterward found these ideas common among other wise men of the dusky race, and once held a similar conversation with an Indian of the Wintun on Mount Shasta, the sheen of whose snow-clad summit seems almost to merge into the firmament. On these dizzy heights my Wintun friend expounded the same philosophy of gravity.

Now in the language of Chuar's people, a wise man is said to be a traveller, for such is the metaphor by which they express great wisdom, as they suppose that a man must learn by journeying much. So in the moonlight of the last evening's sojourn in the camp on the brink of the canyon, I told Chuar that he was a great traveller, and that I knew of two other great travellers, among the seers of the East, one by the name of Hegel and another by the name of Spencer, and that I should ever remember these three wise men, who spoke like words of wisdom, for it passed through my mind that all three of these philosophers had reified void and founded a philosophy thereon.

Concepts of number, space, motion, time, and judgment, are developed by all minds, from that of the lowest animal to that of the highest human genius. Through the evolution of animal life, these concepts have been growing as they have been inherited down the stream of time in the flood of generations. It is thus that an experience has been developed, combined with the experience of all the generations of life for all the time of life, which makes it impossible to expunge from the human mind these five concepts. They can never be cancelled while sanity remains. Things having something more than number, space, motion, time, and judgment, cannot even be invented; it is not possible for the human mind to conceive anything else, but semblances of such ideas may be produced by the mummification of language.

Ideas are expressed in words which are symbols, and the word may be divested of all meaning in terms of number, space, motion, time, and judgment, and still remain, and it may be claimed that it still means something unknown and unknowable; this is the origin of reification. There are many things unknown at one stage

of experience which are known at another, so man comes to believe in the unknown by constant daily experience; but has by further converse with the universe known things previously unknown, and they invariably become known in terms of number, space, motion, time, and judgment, and are found to be only combinations of these things. It is thus that something unknown may be conceived, but something unknowable cannot be conceived.

No man conceives reified substrate, reified essence, reified space, reified force, reified time, reified spirit. Words are blank checks on the bank of thought, to be filled with meaning by the past and future earnings of the intellect. But these words are coin signs of the unknowable and no one can acquire the currency for which they call.

Things little known are named and man speculates about these little-known things, and erroneously imputes properties or attributes to them until he comes to think of them as possessing such unknown and mistaken attributes. At last he discovers the facts; then all that he discovers is expressed in the terms of number, space, motion, time, and judgment. Still the word for the little-known thing may remain to express something unknown and mystical, and by simple and easily understood processes he reifies what is not, and reasons in terms which have no meaning as used by him. Terms thus used without meaning are terms of reification.

Such terms and such methods of reasoning become very dear to those immersed in thaumaturgy and who love the wonderful and cling to the mysterious, and, in the revelry developed by the hashish of mystery, the pure water of truth is insipid. The dream of intellectual intoxication seems more real and more worthy of the human mind than the simple truths discovered by science. There is a fascination in mystery and there has ever been a school of intellects delighting to revel therein, and yet, in the grand aggregate, there is a spirit of sanity extant among mankind which loves the true and simple.

Often the eloquence of the dreamer has even subverted the sanity of science, and clear-headed, simple-minded scientific men have been willing to affirm that science deals with trivialities, and that only metaphysics deals with the profound and significant things of the universe. In a late great text-book on physics, which is a science of simple certitudes, it is affirmed:

"To us the question, *What is matter?*—What is, assuming it to have a real existence outside ourselves, the essential basis of the phenomena with which we may as physicists make ourselves ac-

quainted?—appears absolutely insoluble. Even if we become perfectly and certainly acquainted with the intimate structure of what we call Matter, we would but have made a further step in the study of its properties; and as physicists we are forced to say that while somewhat has been learned as to the properties of Matter, its essential nature is quite unknown to us."

As though its properties did not constitute its essential nature.

So, under the spell of metaphysics, the physicist turns from his spectroscope to explain that all his researches may be dealing with phantasms.

Science deals with realities. These are bodies with their properties. All the facts embraced in this vast field of research are expressed in terms of number, space, motion, time, and judgment; no other terms are needed and no other terms are coined, but by a process well known in philology as a disease of language, sometimes these terms lapse into meanings which connote fallacies. The human intellect is of such a nature that it has notions or ideas which may be certitudes or fallacies. All the processes of reasoning, including sensation and perception, proceed by inference; the inference may be correct or erroneous, and certitudes are reached by verifying opinions. This is the sole and only process of gaining certitudes. The certitudes are truths which properly represent noumena, the illusions are errors which misrepresent noumena. All knowledge is the knowledge of noumena, and all illusion is erroneous opinion about noumena. The human mind knows nothing but realities and deals with nothing but realities, but in this dealing with the realities—the noumena of the universe—it reaches some conclusions that are correct and others that are incorrect. The correct conclusions are certitudes about realities; the incorrect conclusions are fallacies about realities. Science is the name which mankind has agreed to call this knowledge of realities, and error is the name which mankind has agreed to give to all fallacies. Thus it is that certitudes are directly founded upon realities; and fallacies alike all refer to realities. In this sense then it may be stated that all error as well as knowledge testifies to reality, and that all our knowledge is certitude based upon reality, and that fallacies would not be possible were there not realities about which inferences are made.

Known realities are those about which mankind has knowledge; unknown things are those things about which man has not yet attained knowledge. Scientific research is the endeavor to in-

crease knowledge, and its methods are experience, observation, and verification. Fallacies are erroneous inferences in relation to known things. All certitudes are described in terms of number, space, motion, time, and judgment; nothing else has yet been discovered and nothing else can be discovered with the faculties with which man is possessed.

In the material world we have no knowledge of something which is not a unity of itself or a unity of a plurality; of something which is not an extension of figure or an extension of figure and structure; of something which has not motion or a combination of motions as force; of something which has not duration as persistence or duration with persistence and change.

In the mental world we have no knowledge of something which is not a judgment of consciousness and inference; of a judgment which is not a judgment of a body with number, space, motion, and time. Every notion of something in the material world devoid of one or more of the constituents of matter is an illusion; every notion of something in the spiritual world devoid of the factors of matter and judgment is a fallacy.

In the intoxication of illusion facts seem cold and colorless, and the wrapt dreamer imagines that he dwells in a realm above science—in a world which as he thinks absorbs truth as the ocean the shower, and transforms it into a flood of philosophy. Feverish dreams are supposed to be glimpses of the unknown and unknowable, and the highest and dearest aspiration is to be absorbed in this sea of speculation. Nothing is worthy of contemplation but the mysterious. Yet the simple and the true remain. The history of science is the history of the discovery of the simple and the true; in its progress fallacies are dispelled and certitudes remain.