of these causes or powers, or properties or qualities, we call these qualities secondary qualities; we know them, I confess, only in so far as causes of our sensations: but in short we know them by this title, and this is a real knowledge incontestably found in all men. But, according to Locke, knowledge is always on this condition, that the idea upon which knowledge turns shall represent its object. You have certainly the idea of the secondary qualities of bodies in so far as causes of several of your sensations Well, this idea which you all have, and upon which is founded almost all your conduct and human life entire, is true, constitutes a legitimate knowledge, only on condition that it shall be conformed to its object, to the causes of your sensations, to the secondary qualities of bodies. And when I say that it shall be conformed to them, think that the condition of the conformity is nothing less than that of resemblance, that the condition of the resemblance is nothing less than the condition of being an image, and that the condition of every image is nothing less than the condition of being a sensible and material image: for there is no immaterial image. The question, then, is, whether you have or have not the material image of the secondary qualities of bodies, that is, of those properties of bodies which cause in you the sensations of color, of sound, of savor, and of odor. Let us see what the material image of a cause can be. A cause, in so far as cause (and the properties or secondary qualities of bodies are nothing else), has no form, no color; consequently, what material image can be made of it? A cause, whatever it may be, whether you place it in the soul or in what is called matter, is always a cause, is never any thing but a cause; and in so far as cause, it falls neither under the hand nor under the eye, it falls under none of the senses: it is therefore something of which you cannot have, strictly, a sensible idea, an image-idea, a material image. Therefore since you have not, and cannot have the image of a cause, and since the secondary qualities of bodies are given to you only as causes, it follows that you should not have any legitimate knowledge of the secondary qualities of bodies; it follows even, strictly speaking, that you cannot have any legitimate or illegitimate knowledge of them, and that these qualities must be for you as if they were not, since you have been able to reach them only by the more or less faithful images which you make of them, images which are here absolutely wanting to you. The denial of the secondary qualities of bodies is then the inevitable result of the theory that every idea must represent its object in order to be true. This result is inevitable; nevertheless experience contradicts it, and in contradicting it, refutes the principle. The ideas of secondary qualities do not in any manner resemble their objects, and nevertheless they contain a certain knowledge: therefore it is not true that all knowledge supposes the resemblance of the idea to its object.

The theory of Locke is destroyed upon the secondary qualities of bodies, let us see if it will be more happy in regard to the primary qualities.

Solidity is the primary quality of bodies *par excellence*. Solidity with its degrees and its shades, hardness or softness, impenetrability or penetrability, envelops extension, which contains dimension and form: these are almost all the primary qualities of bodies. Locke affirms that the ideas of the primary qualities resemble these qualities. It is, in his eyes, their title of legitimacy. This theory seems true on one point, in that which regards form. In fact, the form of objects, which appertains to extension, which appertains to solidity, is painted upon the retina. Experience testifies to it, and the conformity of these images to their objects seems certainly the foundation of the truth of the ideas which we have of the form of objects; but this is only a false semblance.

If the resemblance of the image upon the retina to the form of the exterior object is the foundation of the knowledge of the form of this object, it follows that this knowledge could never have been acquired except on the following conditions:

1st, That we should know that some image is upon the retina.

2d, That by some process, comparing the image upon the reti-

na with the exterior object, we should find in fact the image which is on the retina similar to the object in respect to form.

These two conditions are necessary; but are they, in reality, fulfilled, in the fact of the knowledge of the forms of exterior objects? Not at all. First, the knowledge of the image upon the retina is a tardy acquisition of experience and of physiology. The first men who believed that they had before them figured bodies, did not in the least know that there were images upon the retina. They were still farther from calling into question the resemblance between these images, which they knew not, and the forms of the bodies which they knew; and, consequently, the condition which is imposed upon the human mind of knowing the image upon the retina and verifying the conformity of this image with its object, is not the process which abandoned to itself, and without any system, it naturally employs to know the forms of bodies. Afterwards, observe that if the faithful picture of the object on the retina explains the secret of the perception of this form, it is necessary that this image should go from the retina to the optic nerve, from the optic nerve to the brain, which, as Locke says, is the audience-chamber of the soul, and that from this audience-chamber it should be introduced into the soul itself: but it may be stopped at each step. From the retina the image must be transmitted by the optic nerve. Now, who does not know that the optic nerve is in a dark region, impenetrable to light? The optic nerve is dark; no image can then be painted upon it: and the image thus abandons us. Besides, the brain, this audience-chamber, is also in a dark region; the soul, which, according to the theory of Locke, must look upon the retina in order to encounter an image of the form of the body, and which must see this image, and see it conformed to its original, can make this observation neither upon the optic nerve, nor upon the brain.

We have, thus to speak, closed all the avenues of the soul to the hypothesis of the idea-image; in the perception of the form of objects, we do not find the three things—figured objects—a

soul capable of perceiving the figures of these objects—an intermediate image between the real form of objects and the soul; figured objects alone exist, and a soul endowed with the faculty of perceiving them with their forms. The existence of the image of the figure of objects upon the retina is a real fact, which is, doubtless, the previous condition of the perception of visible appearances, but not the foundation of this perception, which precedes it, but does not constitute it nor in any wise explain it. The existence of the image of the figure of objects upon the retina, a simple condition and an exterior condition of the phenomenon of vision, transformed into a complete explanation of this phenomenon, is the source of the hypothesis of the idea-image, as to the perception of the forms of objects. It has still another. Not only is the soul endowed with the faculty of perceiving the forms of present objects, certain organic conditions being fulfilled; but again, when these objects are absent, it is endowed with the faculty of recalling them, not only of knowing that they were, but of representing them such as they were, and with the forms which we had perceived in them when they were present. The memory has really this imaginative power; we imagine objects precisely as we perceive them; this is incontestable. But in the imagination of the forms of absent objects, as in the perception of the forms of present objects, there are but two terms, the absent objects, and the soul which can represent them when absent; or rather, in this case, there is really nothing but the soul, which, in the absence of the objects, recalls them with their forms, as if they were before it. Now, in the soul which represents past objects, poetry may very well detach the representation itself from the objects and consider it apart, as a proper element and subsisting by itself: it is the right of poetry, but not that of philosophical analysis, which cannot legitimately convert abstractions into realities. Abstraction realized, the participle or adjective converted into a substantive, is the second source of the hypothesis of the idea-image, not to call to mind vicious conditions of the communication between bodies imposed upon the intelligence.

As yet we have only discussed the phenomenon of vision, of the form of external objects: what would it then be, if we discussed other primary qualities of bodies, for example, the primary quality *par excellence*, solidity? Would you dare to revive the scholastic hypothesis of the tangible species, in order to make a match for the visual image upon the retina? Would you place this tangible species upon the mysterious avenues of the nerves and of the brain, which the image of the form was unable to traverse? Be it so: let us suppose that this tangible species, this idea-image of solidity, has arrived as far as the soul, and let us see if it satisfies the fundamental condition of the theory of Locke, if it is conformed or not conformed to its model, to solidity itself. What is solidity? Solidity, as we have seen, is resistance. Where there is no resistance, there is for us nothing but ourselves. When resistance begins, then, for us, begins something besides ourselves: the outward, the exterior, nature, the world. If solidity is something that resists, it is a resisting cause; and again, for the primary qualities of bodies as well as for their secondary qualities, we are brought back to the idea of cause; here again it is necessary, in order that we may have the legitimate knowledge of the resisting cause, of solidity, it is necessary, I say, that we should have an idea which is conformed to it, which is similar to it, which is the image of the resisting cause, and which is its material image. Such is the systematic condition of the knowledge of the primary quality of bodies. But I have shown that there cannot be a material image of any cause; there cannot then be one of a resisting cause, of solid, that is, of the fundamental quality of bodies.

Thus we have not a more legitimate idea of the primary qualities of bodies, than of their secondary qualities, if we have this legitimate idea on condition that this idea shall be a material image of its object. But we have not yet finished; as yet we are only at the entrance of the exterior world. Not only has body secondary qualities and primary qualities, which I have just enumerated, and which I have just demonstrated as incompatible

with the theory of Locke; but again, we believe that, under these secondary and primary qualities, there is something that is the subject of all these qualities, something which really exists in a permanent manner, whilst the qualities are in a movement and in a perpetual alteration; we all believe in the existence of a subject, of a substance of these qualities. Now, according to the theory, the idea of this substance is legitimate only on condition that it is conformed to its object, to wit, the substance of the body; and the idea, in order to be conformed to its object, in order to resemble it, must be its image, and every image must be material. But I ask you, if it is possible to have a material image of substance? it is evidently impossible; then you have no idea of substance and of the reality of bodies.

Not only do you believe in the real and substantial existence of bodies, but you believe that these bodies, whose fundamental attribute is solidity, resistance, are somewhere, in a place, in space. You all have the idea of space. But you can have it only on condition that the idea which you have of it represents it, is its material image; and as we have seen, one of the characters of space is, that it cannot be confounded with the bodies which fill it and measure it, but which do not constitute it. Then it is impossible *à fortiori*, that you can have a material image of that which does not materially exist, when you cannot have such an image of bodies and of their fundamental attributes or accessories.

It is the same in regard to time. You believe that the movements of bodies and the succession of their movements are accomplished in time, and you do not confound the succession of the movements of bodies with the time which it measures, and which it no more constitutes than the collection of bodies constitutes space. You have the idea of time distinct from all succession: if you have it, it is again, by the theory of Locke, on the condition that you have an idea which is conformed to it, an idea-image. But you cannot have an idea-image of time, since time is distinct from the movements of bodies, and does not

fall under any sense; then you cannot have a legitimate idea of it.

I could pursue this discussion much farther; but I think that I have carried it far enough to demonstrate that if, relatively to the exterior world, our ideas are true only on condition that they are representative ideas, ideas conformed to their objects, images and material images of their objects, we should have no legitimate idea of the exterior world, nor of secondary qualities, nor of primary qualities, nor of their subject, nor of space, nor of time. Therefore the theory of the material image concludes by destroying the legitimate knowledge of matter and of the exterior world.

The objections which I have just presented to you are so natural and so simple, that Locke could not even lay down the problem as he has laid it down without suspecting them in part; and they presented themselves to him with sufficient strength to shake his conviction of the existence of the exterior world. He does not call this existence in question, but he confesses that on the sole foundation of the representative idea, the knowledge of bodies has not a perfect certainty; he thinks, at the same time, that it goes beyond simple probability. "But yet, if after all," says Locke, "any one will question the existence of all things, or our knowledge of any thing, I must desire him to consider that we have such an assurance of the existence of things without us, as is sufficient to direct us in the attaining the good, and avoiding the evil, which is caused by them; which is the important concernment we have of being made acquainted with them." This is almost the language of skepticism.

Nevertheless, Locke is not skeptical in regard to the existence of bodies; notwithstanding his theory of ideas, he is clearly idealistic. He is attached to the great peripatetic and sensualistic family, in which the theory of species, and sensible species, had the authority of a dogma, and the duty of giving and explaining the exterior world. Of sensible species, the seventeenth century in general, and Locke in particular, have made sensible ideas,

provided with all the qualities of species, representatives of their objects and emanating from them. There is, then, no idealistic design in Locke's theory of ideas. On the contrary, Locke is convinced that these ideas, in so far as representatives, are the only solid foundation which can be given for the knowledge of exterior objects; only he acknowledges, partly against his will, the peripatetic hypothesis of species, transformed into the modern theory of sensible ideas, turns against his aim, and that, although this hypothesis has an evidently materialistic character, since in it ideas are necessarily images and material images, it has not the power to give matter legitimately. Judge what it must be in regard to the spiritual world, the soul, and God: I shall be brief.

Remember the general principle of Locke. We have no legitimate knowledge whatever, except on condition that the ideas which we have of it be conformed to their object. Now, every one believes in the existence of his soul, that is, in the existence of something in us, which feels, which wills, which thinks. Those even who do not believe in the spiritual existence of this subject, have never doubted the existence of its faculties, the existence of the sensibility, for example, that of the will, that of the thought. Well, think of it: you have no legitimate knowledge of thought, of will, of sensibility, except on condition that the ideas which you have of them represent them; and these ideas must be images, and consequently material images. See into what an abyss of absurdities we have fallen. In order to know thought and will, which are immaterial, we must necessarily have a material image which resembles them. But what is a material image of thought and of will? The same absurdity exists in regard to the sensibility. The absurdity is greater, if possible, in regard to the substance of these faculties, in regard to the soul, and then in regard to the unity and identity of this soul, and then in regard to the time in which the operations of the faculties of this soul are fulfilled, sensations, volitions, thoughts.

Behold, then, the spiritual world crumbling like the material

world. Simply because we have no legitimate ideas of our faculties and of their subject, except on the condition of these ideas being material images, it is evident that we have no legitimate knowledge of our soul, of its faculties, and of our whole interior being, intellectual and moral. The difficulty here even seems greater than in regard to the material world, or at least it shakes still more the successor of Bacon and of Hobbes. As to the material world, he had acknowledged that many objections existed against his theory of ideas, but these objections did not seem insurmountable, and he believed that they still left us a certain knowledge of the material world, sufficient for our wants; by this he pretended to open the door only to a semi-skepticism. It was doubtless a weakness; for the idea of Locke, a material image, in nowise representing bodies, either complete or incomplete, no idea of bodies should have been admitted; he should have gone on to absolute skepticism. Locke is arrested by good sense and by the evidence which, in his school, surrounds the objects of sense and the physical world. But when he arrives at the spiritual world, to which the sensualistic school adheres less closely, the arguments which naturally arise from his own theory, strike him more forcibly, and see what he declares, Book IV. Chap. XI. § 12: "We can no more know that there are finite spirits really existing, by the idea we have of such beings in our minds, than by the ideas any one has of fairies, or centaurs, he can come to know that things answering those ideas do really exist." This seems to me to be absolute skepticism; and you, perhaps, think that the last conclusion of Locke will be that there is no knowledge of finite spirits, consequently none of our soul, consequently again, none of any of the faculties of our soul; for the objection is as valid against the phenomena of the soul as against its substance. It is here he should have terminated; but he did not dare to do it, because there is no philosopher at the same time more wise and more inconsistent than Locke. What does he then do?

In the danger in which his philosophy throws him, he abandons his philosophy, and all philosophy, and he appeals to Christianity, to revelation, to faith; and by faith and revelation, he does not understand a faith, a natural revelation; he understands faith and revelation in the peculiar theological sense, and he concludes thus: "Therefore concerning the existence of finite spirits, as well as several other things, we must content ourselves with the evidence of faith." Thus, Locke himself anticipates the inevitable consequences to which I wished to lead him. Speaking as a philosopher and not as a theologian, I said that if we have no other reason for believing in the existence of spirit than the hypothesis of the representative idea, we have no good reason for believing in it. Locke grants it, proclaims it himself, and throws himself into the arms of faith. I shall not leave him there. The world of faith is interdicted to him as well as the world of spirit and that of matter; he could penetrate it only by the grossest paralogism. Locke has no more right, he has still less right to believe in faith, in revelation, in Christianity, than to believe in the finite spirits which we are and in the matter which is before us.

Revelation supposes two things: 1st, doctrines emanating from God; 2d, a book in which these doctrines are deposited and preserved. This book, although its contents are divine and sacred, is itself material; it is a body, and I here refer Locke to the objections which I have made against the legitimate knowledge of bodies, if we have no other foundation for believing in them than the idea-image which represents them to us. Thus we can have no legitimate knowledge of the book in which the sacred doctrines, revealed by God, are contained. If it is thus in regard to the book, what become of the doctrines which it contains? Besides, these doctrines come from God.

And what is God? a spirit, and, apparently, an infinite spirit. Now, we have just seen that Locke was unable, according to his theory, to admit the legitimate existence of finite spirits; and, incredible as it may seem, in order to make me admit the existence of finite spirits, he proposes to have me begin by

admitting the existence of an infinite spirit! But is not this explaining *obscurum per obscurius?* A while since the human mind was condemned to have no knowledge of finite spirits, because it could have no ideas conformed to them, and now, for greater facility, it must have an idea of the infinite spirit, which perfectly represents it! But if it cannot represent a finite it will be still less able to represent an infinite spirit; evidently it cannot do it on the condition of Locke, that is, on the condition of forming an image of it, and moreover a material image; therefore there is no infinite spirit, no God; therefore no possible revelation. Everywhere at each step, in the theory of Locke, we have an abyss of paralogism.

If it is true that we have no legitimate knowledge, no true idea except on the condition that this idea represents its object, that it be conformed to an image, and a material image of this object, which I have shown to be the rigorous condition of the hypothesis of ideas, it follows that we have no legitimate idea of the exterior world, of the world of spirits, of souls, of ourselves, and still less of God, to whom Locke appeals. Consequently it follows in the last analysis that we have no true idea of beings, and that we have no other legitimate knowledge than that of our ideas, still less their object, whatever it may be, beginning by our own personal being itself. Such a consequence overwhelms the theory of ideas, and this consequence proceeds invincibly from this theory.

LECTURE XXII.

ESSAY, FOURTH BOOK. REPRESENTATIVE IDEAS CONTINUED

Summary and continuation of the preceding lecture.—Of the idea, no longer in relation to the object which it should represent, but in relation to the mind which perceives it and in which it is found.—The idea-image, taken materially, implies a material subject; whence materialism.—Taken spiritually, it can give neither bodies nor spirit.—That the representative idea laid down as the only primitive datum of spirit in the search after reality, condemns to a paralogism, it being impossible that any representative idea can be judged to represent well or ill, except by comparing it with its original, with reality itself, to which, in the hypothesis of the representative idea, we can arrive only by the idea.—That knowledge is direct and without intermediation.—Of judgments, of propositions, of ideas.—Return to the question of innate ideas.

I AM now about to resume and complete the last lecture. According to Locke, knowledge is entirely in the relation of the idea to its object; and this knowledge is true or false according as the relation of the idea to the object is a relation of conformity or of nonconformity: the idea in order to be true, in order to be the foundation of legitimate knowledge, must be similar to its object, must represent it, and be its image. Now, what is the condition of an idea-image? There is no image without figure, without something extended, without something sensible and material. The idea-image implies then something material; and if the truth of knowledge is resolved into the conformity of the idea to its object, it is resolved into the conformity of an image, taken materially, to its object, whatever it may be.

Remark that the theory of the representative idea, as the basis of consciousness, is in Locke a universal theory, without limit, without exception: it must therefore account for all knowledge; it must go as far as human knowledge can go; it embraces God, spirits, bodies; for all this falls more or less under knowl-