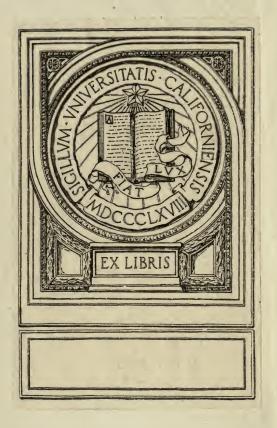
PASCAL



ÉMILE BOUTROUX





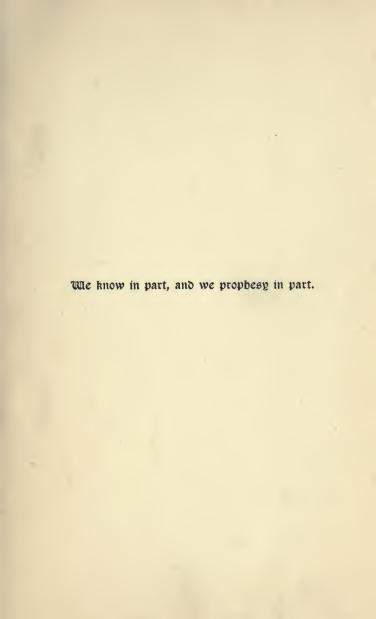




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PASCAL











PASCAL

BY

ÉMILE BOUTROUX

Member of the French Institute; Professor of Modern
Philosophy at the University of Paris.

TRANSLATED BY
ELLEN MARGARET CREAK

With Portraits, Illustrations and Notes



MANCHESTER SHERRATT AND HUGHES 1902

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TRANSLATOR'S PREFACE.

This translation of the most recent study of Pascal by one of his own countrymen is offered in the hope of making him more widely known among English readers. For Pascal belongs to mankind, by virtue of that common human nature which was to him so profoundly interesting. A lover of perfection and a lover of humanity, he spent himself in the passionate effort to attain the one and to point out the way of it to the other.

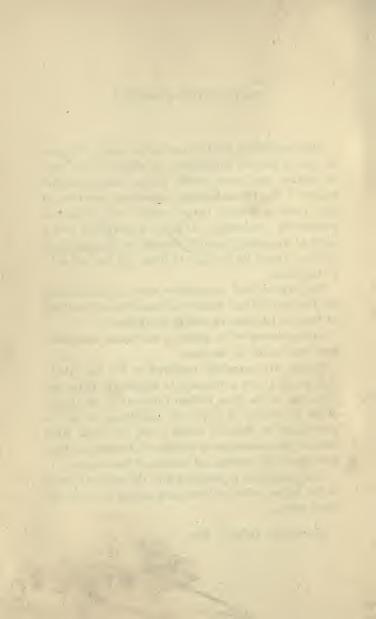
Biographical and explanatory notes have been added for the help of those readers to whom the surroundings of Pascal's life may be wholly unfamiliar.

At the request of the author, a few minor alterations have been made in the text.

Thanks are gratefully tendered to the Rev. D. H. Milman, M.A., for permission to reproduce engravings belonging to the Sion College Library; to M. Gazier, of the University of Paris, for permission to use his photograph of Pascal's death mask, the mask itself being in his possession; to the Rev. T. Gasquoine, B.A., for help in the revision of several of the chapters.

The translation is published with the entire approval of the author, who has been good enough to revise the proof sheets.

Manchester, October, 1902.



NOTE BY THE AUTHOR.

Pascal, when about to write, used to kneel down and pray the infinite Being so to subdue every part of him unto Himself, that when he was thus brought low the divine force might enter into him. By self abasement he prepared himself for the receiving of inspirations.

In like manner it would seem that he who would get at the heart of so rare and exalted a genius should begin by becoming receptive to his influence, and that while making use, so far as we can, of the natural means at our disposal—scholarship, analysis, and criticism, we should seek, in humbly sitting at the feet of Pascal himself, that inspiring grace which alone can direct our efforts and make them of any avail.



PASCAL

CHAPTER I.

CHILDHOOD AND YOUTH. EARLY SCIENTIFIC WORK.

BLAISE PASCAL was born at Clermont-Ferrand on June 19, 1623. He came of an old Auvergne family, one of whose ancestors, Étienne Pascal, holding the office of maître des requêtes (magistrate of appeal in the King's Council) had been ennobled by Louis XI. Its ancient lineage notwithstanding, this noblesse de robe (judicial nobility) kept more in touch with the bourgeoisie than with the military nobility. It was early distinguished by its calm resistance to despotism. During the Fronde the magistracy, though not in open revolt, was avowedly opposed to the absolute power of the monarchy. The father of Blaise was Étienne Pascal, whose father and grandfather before him had held office under the treasury. Étienne Pascal was elected counsellor for the King in the electoral district of Bas-Auvergne at Clermont. Before long he became vice-president of the cour des aides at Montferrand, a court which was transferred to Clermont in 1630. married Antoinette Bégon, a highly religious and intellectual woman, by whom he had four children. Only three of these survived: Gilberte, afterwards Mme. Périer, born in 1620; Blaise, three years younger; Jacquette or Jacqueline, born in 1625.

Although Blaise lost his mother by death when he was three years old, yet womanly influence was not

without its share in his education. For he grew up side by side with his sisters, to whom he was tenderly attached, and was also under the charge of a confidential maid, whom Mme. Périer calls ma fidèle, and who was probably something more than a mere servant.

The father, Étienne Pascal, an able mathematician, versed in physics, and in touch with the cleverest men of the day, set his heart on giving a thorough education to his children, more especially his son. Wishing to devote himself wholly to this task and being in easy circumstances, in 1631 he relinquished his government appointment, left Clermont, where the distractions of society would have interfered with his project, and settled in Paris. There he was acquainted with the family of the eminent lawyer, Antoine Arnauld, of anti-Jesuit fame, who died in 1619, and of whose twenty children ten were still living, among them Arnauld d'Andilly, the eldest, and Antoine Arnauld, the theologian, the youngest, born in 1612.

The father, Étienne Pascal, formed a carefully thought out plan for the education of his son. His leading maxim was that the child must always be kept ahead of his work. He had decided not to let him begin Latin and Greek until he was twelve, mathematics not before fifteen or sixteen. While he was between eight and twelve his father only taught him some broad facts as to the nature of languages, explaining how their formation had come about naturally, and they had been afterwards reduced to grammar by the analysis and classification of their elements. In this way he made clear to him the

origin and signification of the rules laid down by scholars. At the same time he used to draw the boy's attention to remarkable natural phenomena, such as the effects of gunpowder and other surprising things.

Whether spontaneously or under the influence of this training, there awoke betimes in Pascal the craving to understand. Not only did he demand a reason for everything, but he was by no means easy to satisfy, and showed an admirable clearness of brain in discerning the true from the false. He did not confine himself to asking questions, but used to investigate on his own account. Having noticed one day that when an earthenware dish was struck with a knife there was a loud noise which ceased immediately on the dish being touched with the finger, he wanted to know why this was so, and set to work to make experiments in sound. He learnt so much in this way that he soon wrote a regular treatise on the subject. Here his reasoning was thoroughly logical, and in fact this child of twelve had carried out the experimental method in its exactitude: the noting of a curious fact, the comparison of different cases, conjectures as to the cause, experiments.

In this teaching, perfectly concrete, there was no religious element whatever. Not that Étienne Pascal was a freethinker. Religion commanded his heartfelt reverence and loyalty. But he maintained that what is apprehended by faith cannot also be apprehended by reason, still less be under subjection to it. On the other hand, he considered faith to be quite out of place in the realm of physical research. In regard to the conduct of life, he saw no

incompatibility between the worldly and the religious habit of thought, and deemed it possible and legitimate at the same time to walk in the ways of worldly success and live by the gospel precepts.

His educational plans, however, were suddenly frustrated. One of the points of his programme to which he held most tenaciously was that mathematics should not be mentioned to the boy until he was fifteen or sixteen. Now mathematical subjects were precisely those on which Blaise was most eager for information and about which he used to ply his father with questions. The latter refused to satisfy him, promising the child that he would teach him this subject as a reward when he had mastered Latin and Greek. One day, however, when Blaise was but twelve years old, his father surprised him working out the thirty-second proposition of the first book of Euclid, which demonstrates that the three angles of any triangle are together equal to two right angles.

How had the child come to set himself such a problem? The most likely explanation would seem to be that of Mme. Périer. According to her account Étienne Pascal, importuned by his son's questions, told him one day that mathematics supplied the means of making accurate figures and finding out the proportions they bore to each other. Pascal began to ponder this during his play hours, and he would draw charcoal figures on the tiled floor, taking pains to make them exact. He called a circle a round, a straight line a bar. He formed axioms and definitions for himself and made use of them in a series of demonstrations. All this he explained to his father,

when the latter, thunderstruck by his discovery, asked him how he had arrived at the problem on which he was engaged. He answered that he had first of all found out one thing and then another, and so on until he had worked up to his definitions and axioms. Étienne Pascal went with tears of joy to tell his friend, M. Le Pailleur, what had happened, and gave Euclid's Elements to the boy, so that he might read it during his play hours.

In other respects he continued to carry out his original plan. Now that his son had completed his twelfth year he set him to learn Latin, mathematics and philosophy, and to begin regular scientific study. He taught him Latin by a method of his own, which showed the relation of Latin grammar to general grammatical principles as deduced from the study of languages and the laws of mind. History and geography were made the subjects of daily conversation during and after meals, and the children played games invented by their father for the sake of helping them in these studies. It was at the table also that the boy received his first lessons in philosophy.

The chief place in this scheme of education was given to the sciences, and to these Blaise devoted himself with ardour, above all to mathematics, which appealed to his sense of truth.

Étienne Pascal's house was the meeting place of one of the scientific circles of the day whose members met regularly for the purpose of discussion. Young Pascal was early allowed to be present at these gatherings, where he bore his part extremely well, frequently even making useful suggestions. Before

long his father also took him to the famous meetings held weekly at the house of Father Mersenne; these meetings formed the nucleus of the future Academy of Sciences. Here were to be met Roberval, Carcavi, and Le Pailleur, the mathematicians; Mydorge, devoted to the making of lenses and burning mirrors; Hardy, steeped in the knowledge of mathematics and oriental languages; Desargues, of Lyons, who sought to turn mathematics and mechanics to account for the lightening of the toil of the artisan. The tone of this company was mainly scientific. Its special leaning was towards mathematics, which Mersenne even dreamed of applying to the things of morality. But its members also took the keenest interest in any facts, experiments, or useful inventions founded upon science. There was no hostility to the ancients, but they were looked upon as only forerunners; and among the moderns, Galileo the mathematician ranked higher than Bacon the philosopher.

In matters philosophical and religious, these men of science had, along with a firm and sincere faith, a certain mistrust of the reason in dealing with metaphysics. Mersenne even went so far as to view not altogether without satisfaction the triumph of scepticism over the pride of the dogmatists on the ground of the uncertain character of their disciplines. On the other hand, it was agreed that the Roman Inquisition had no business to meddle with scientific matters, in which the senses and the reason ought to be the only arbiters.

Several questions of great importance were brought up for discussion at this time. Thus in 1636 we find Étienne Pascal and Roberval writing to Fermat to announce to him that we do not really know the cause of the falling of bodies. The commonly received opinion would make weight a quality inherent in the falling body itself; others maintain that the falling is due to attraction exercised by some other body; while there is yet a third theory, not altogether without plausibility, which would make the attraction a mutual one between two bodies tending to unite. How is the question to be settled? Only by examining the experimental results of each hypothesis. For example, if weight be a quality inherent in the body itself, then that body will always have the same weight whether it be near or far from the centre of the earth. This result, as also those which follow from the other hypotheses, must be put to the test of experiment. We cannot in these matters admit any other principles than those whose certainty has been assured to us by means of experiment aided by sound judgment.

In 1637 the Essais philosophiques of Descartes were published. This was an event in the history of science. It had been impatiently awaited by scholars, and must have attracted the notice of young Pascal. Roberval and Étienne Pascal seem to have given scant attention to the Discours de la Méthode, which formed the introduction to the work. They judged that there were in La Dioptrique (Dioptrics) and Les Météores (Meteors) some particular opinions clearly enough deduced. But for them deduction was not demonstration. The author, they said, would find himself quite at a loss if challenged to prove his assertions. The conceptions of the mind were only of value if conse-

quences verifiable by experiment could be drawn from them. An hypothesis that served merely to gratify the metaphysical fancy was of no account whatever.

The third philosophical treatise contained in the Essais philosophiques of Descartes gave rise to a lively dispute between Descartes on the one side and Roberval and the president, Étienne Pascal, on the other. Fermat having sent anonymously to Descartes his De maximis et minimis, which he looked upon as supplying a grave lacuna in the philosopher's geometry, the latter, in his turn, severely criticized the work. Roberval and Étienne Pascal took upon themselves to be Fermat's champions, and a lively enough controversy ensued, in which Descartes adopted now a bantering and now a supercilious tone. His opponents sought rather to find him out in error than to understand him. This circle as a whole was in direct antagonism against him, in spite of the fact that Father Mersenne professed so frank an admiration for his genius.

In such an atmosphere the faculties of young Pascal developed rapidly. He became especially skilled in mathematics and physics. He acquired the sense of strict demonstration and of the suitability of the method to the subject of the demonstration. He understood the process of proving, whether in mathematics or physics, and learned that certainty is obtained only when our ideas are found to accord not with our cherished prejudices but with facts.

With respect to literature, Pascal gained a very fair knowledge of Latin, which he read and wrote with ease; of Greek he would seem to have known enough to be able to compare a translation with the text; and it is likely that he could also read Italian. cultivation of ancient and modern literature not being included in his father's scheme, what knowledge he had of it was due to his own later reading. Moreover, it was his habit to think deeply on what he read rather than to read widely, and he never attained scholarship in any direction. In theology, too, the instruction he received must have been of the scantiest. When the time should come for him to approach this science in later years he would have everything to learn, and was never to pass beyond its earlier stages. The same with philosophy. While under his father's tuition he only gained the most general notions of it; what little real knowledge he possessed was the fruit of his own later reading.

The intercourse of savants was not the only kind Pascal was accustomed to in his childhood and early youth. He was also to a certain extent familiar with that of the world. His elder sister, Gilberte, who took the management of her father's house when only fifteen, was much sought after in society, being an attractive and beautiful girl, of fine physique, intelligent, and sensible. Jacqueline was distinguished by a rare sweetness of mind and disposition. Richelieu was charmed with her when she played in a comedy before him. She wrote verses in which she vied with Benserade in elegance and with "the great Corneille" in force and vigour.

Many were the tokens received by the Pascal family of the esteem in which they were held. These they accepted with quiet dignity. It was their wont to care more for merit than for repute. When Étienne Pascal, in becoming intendant de la généralité at Rouen, undertook a task involving some danger and difficulty on account of the recent troubles in Normandy, he showed himself equally upright and zealous, and won universal respect. He did not grow rich in the exercise of his office. At the same time he was not unmindful of his own affairs, and sought to improve his financial position and settle his children in life.

In 1641 he married his daughter Gilberte to Florin Périer, whose mother was his cousin-german. M. Périer, was a counsellor in the cour des aides at Clermont. He had a very fine mind, plenty of taste, and a partiality for science. All these things commended him to Étienne Pascal. The latter expected to have no difficulty in also arranging a marriage for Jacqueline, who was a most dutiful daughter and, without being eager for marriage, had no disinclination whatever for it. She was not conscious of any call to the life of the convent, having, on the contrary, a great shrinking from it, and even a certain amount of contempt for a life whose occupations she thought ill suited to satisfy a reasonable mind.

In the persuasion that it is possible to carry out the gospel precepts and at the same time conform to the world's standard, the Pascal family shunned no interests and engagements that were sanctioned and approved by society.

Such was the intellectual and moral environment in which Pascal grew up.

In a mind so active production followed closely, if it

did not even forestall, whatever instruction was given. Taking up with ardour the things that appealed to him, he devoted himself specially to investigation in mathematics and mechanics, and very soon did some remarkably original work in this double domain.

He was not yet sixteen when he conceived the idea of an Essai pour les coniques (Essay on conic sections). This he wrote in 1639 and 1640, but, caring nothing for notoriety, did not publish it. A portion of it was sent by Mersenne to Descartes. The only notice he took of it was to say that before he had read half the essay by M. Pascal's son he had come to the conclusion that the writer had been learning from M. Desargues, adding that he had directly afterwards been confirmed in this opinion by the confession of young Pascal himself. This was ungenerous. For Pascal had said, in regard to a fundamental proposition: "I wish to acknowledge that what little I have found out on this subject I owe to the writings of M. Desargues, and that I have tried as far as possible to follow his method of dealing with it." Leibnitz, on the contrary, into whose hands the entire manuscript fell in 1676, praised it enthusiastically, and, Pascal being then dead, expressed to the family his heartfelt interest in everything that concerned him, urging them at the same time to publish the treatise as it stood. This advice, however, was not followed, and we possess only the portion that was sent to Descartes.

The substance of Pascal's work was as follows: he sought to discover some one principle which should form the basis of the whole theory of conic sections. This he found in the famous theorem of the mystic

hexagramme: the three intersections of the opposite sides of any hexagon inscribed in a conic section are in one right line. Considering the different conic sections, according to a method which seems to have been already employed by Desargues, as one and the same curve which becomes, by the variations of certain lines, parabola, ellipse, or hyperbola, he deduced its properties into five hundred corollaries, all drawn from the same fundamental proposition which applies at once to all conic sections. His theory not only embraced the whole of the results already obtained by Apollonius, but added yet more new properties to those already known.

Being now aware of the power of a well chosen general principle, Pascal's next project was to make use of his scientific knowledge in the invention of a practical instrument which should be as infallible as the theory on which it was planned. He first conceived the idea of this invention by way of helping his father in the endless calculations arising out of his work under the treasury. He thought it ought to be possible to reduce arithmetical operations to measured movement, and therefore to construct a machine which should execute them. Once having found the main idea, he busied himself with all the details of its execution, for he was not one of those who are content to display their genius by the indication of a general scheme, leaving to lesser minds the task of working it out. He wanted to carry on his work up to the point when it should be ready for immediate and easy use. So he tried all possible combinations, made as many as fifty models, and personally superintended the labours

of the workmen. He showed an incredible persistency in overcoming difficulties, theoretical and practical, whether arising from want of manual skill or from the weakness that began to show itself in his own health, ill adapted as it was to the strain of such close application.

At length he succeeded, after two years of toil (1640-1642). In the letter he sent with the machine when introducing it to the notice of Monseigneur the Chancellor Séguier, and also in his Avis (Advertisement), published for those who should wish to make use of it, he writes in a philosophic strain of the work to which he has just been devoting himself. remarks that to mathematics belongs the privilege of teaching nothing they do not demonstrate. geometry and mechanics, being mathematical sciences, furnished him with sure principles. But when it came to the making of a practical instrument such as he had in view the abstractions of the mathematician could not suffice. These supply nothing more than a theory of things in general. Now, such a theory can not provide against the inconveniences liable to arise from the substance of which the instrument is made or from the working conditions of its several parts. Physics and experiments must come to the aid of mathematics in the solving of these problems.

The invention was certainly an original one, the only other calculating machine already in existence being the one known as "Napier's bones." By this multiplication was reduced to addition, but the carrying on had to be done by the operator. Pascal discovered the means of making the machine do this

part of the work as well, and was thus the first real inventor of the calculating machine.

Pascal was now eighteen, and a brilliant and happy future seemed to be opening out before the clever young scholar, courted as he was in society and reaping the advantages of a wise and practical training. It was as yet hardly possible to apprehend the promise of future suffering that lay in the already striking disproportion between his genius and his physical strength, and in that craving after excellence which perchance the world's best gifts would fail to satisfy.

CHAPTER II.

FIRST CONVERSION. WORK IN PHYSICS.

23 In January, 1646, Étienne Pascal, then about fifty. years of age, went out on some charitable errand, fell on the ice, and dislocated his thigh. He placed himself under the care of M. de la Bouteillerie and M. des Landes, two noblemen, brothers, living near Rouen, who had a great reputation for skill in such cases. Having been stirred by the preaching of that devoted servant of God, M. Guillebert, vicar of Rouville, they had placed themselves under his spiritual direction and had no longer any thought but for God, their own salvation and loving service to their fellows. In order to assure themselves of the lasting nature of the cure they had effected, they spent some time with the family of M. Pascal. example and conversation were a means of spiritual edification to the members of the household, who began to feel that their own knowledge of religious matters was somewhat scant, and, above all, to doubt whether they were right in deeming it possible to unite worldly success with obedience to the Gospel precepts.

With their minds thus awakened, Étienne Pascal and his children read several devotional books recommended to them by these godly men: the Discours sur la réformation de l'homme intérieur (Discourse on the renewal of the inner man), by Jansenius; the treatise De la fréquente communion (Of frequent communion), by Arnauld; the Lettres spirituelles (Letters of

spiritual counsel), Le cœur nouveau (The new heart) and other minor works of Saint Cyran.

These writings contained, for the ordinary professing christian, a kind of revelation. They taught that, according to the pure doctrine of Christ and the church, original sin has not only deprived man of supernatural gifts and enfeebled his nature, but also corrupted him through and through. It belonged essentially to man in his primitive state to love God and live by His grace. In this privileged being, nature is already supernatural. But by preferring himself before God and rejecting the divine grace, he has verily brought about his own ruin. He has become, in the very root of his will-power, the slave of that self of which he was enamoured. So that the return of man to God cannot be effected by merely superimposing a higher kind of life on to the life of the unregenerate man; life cannot unite itself with death. He must literally be converted. He must renounce all idea of compromise between God and the world. God cannot dwell within us except he take possession of our whole being. Above all must we beware of that vain love of science which is so much the more ensnaring in that it wears a semblance of innocence, while in reality it is basely leading men away from the contemplation of eternal truths to rest in the satisfaction of the finite intelligence.

It is likely that Pascal would have been but little influenced by these writings, had they appealed only to the feelings, to the unreasoning impulses of the heart, or had they consisted merely of texts and comPORTRAIT OF CORNELIUS JANSENIUS.

The epitaph of Jansenius at Ypres is as follows:

"Here lies Cornelius Jansenius. This is all that needs to be said. His virtue, his knowledge and his reputation will say the rest. He had long been admired in Louvain; he was beginning to be so here. Raised to the office of Bishop, he was set where the eyes of all Flanders were upon him. Yet he did but pass before them like a lightning flash, as it were, and was dead. So fleeting are all the things of this world, so brief even the most lasting of them. Howbeit after his death he will live on in his Augustinus, in which he showed himself to be as faithful an interpreter as ever lived of the profound doctrine of Saint Augustine. He had brought to the performance of this great and sacred task a divinely enlightened mind, unremitting study, and the devotion of a lifetime. He ended at once his work The Church will reap its fruits and his life. upon earth, and as for him, he is already receiving his reward in heaven. He died of the plague on the sixth day of May, in the year mdcxxxviii., and the liii. of his age."





ments thereon. But here was a definite teaching, a coherent system, a call to marshal all the powers of the soul in view of one aim and one only. And this aim was nothing less than to become a partaker of the divine perfection itself. In all these points the teaching of Jansenius and his followers was particularly adapted to such a nature as Pascal's. He was one of those whom duty attracts; and the more exacting the call of duty the more it fascinates them. It was easier to him to give himself unreservedly than half-heartedly. Moreover, once his reason was convinced that the attempt at a compromise between God and the world was an attempt to unite two irreconcilable things, he saw that he had no choice in the matter. Having the two ways open to him, how could he but follow the divine?

So Pascal was converted. Henceforth, casting out from his heart every earthly interest, he determined that his life should be spent altogether for God, that he would seek after none but him and have no other task but to please him. Especially did he resolve to make an end of all those scientific researches to which he had hitherto applied himself, so that he might for the future fix all his thoughts upon that which Jesus Christ has declared to be the one thing needful. The object of his serious study was to be no longer science, but religion; nor did he fail to taste the sweets of that christian solitude in which, with ears closed against the noises of the world, the soul of man communes with him who is the Lord of men and angels.

Tenderly attached to his family, Pascal could not

fail to make known to them the new light that had come to him, and exhort them to enter with him upon the appointed way of salvation. First of all, he strove for the conversion of his sister Jacqueline, then barely twenty years of age, fond of life and a favourite in society. The future smiled upon her. Her hand was sought by a counsellor in the parlement of Rouen. It was no easy task to convince her that whatever she gave to the world was so much taken away from what she owed to God, and that it was her duty to relinquish every worldly prospect and make religion her only care. Yet his example and his words together availed; and before long Jacqueline's eyes were opened, and she saw and confessed with shame how much more of her heart had been given to the world than to her God. She embraced the christian life in all its purity, vowing to the service of God all her thoughts and all her life. In grateful recognition of what her brother had done for her, she regarded herself henceforth as his spiritual daughter.

Next, through the united influence of brother and sister, the father also was induced to give up all worldly advantages in order to live an entirely religious life. This change he made with a joyful heart and remained in the same mind to the day of his death. Finally, at the close of this same year 1646, M. and Mme. Périer came to Rouen and finding the family exclusively devoted to the service of God resolved to do likewise; for the divine grace was shed upon them also; they too were moved by the spirit of God and in their turn became converted. Mme. Périer was but twenty-six when she thus renounced the pomps and

vanities of the world in favour of a life ruled by the strictest piety.

All this change had been brought about in the first instance, under providence, by the excellent pastor M. Guillebert, and the family now placed themselves under his spiritual guidance.

The zeal which this new spiritual awakening had excited in Pascal did not confine itself to the well-being of his own family, but sought a wider field. There lived at this time at Rouen a venerable monk, Jacques Forton, or brother Saint-Ange, to whom the curious were attracted by his teaching of a new philosophy. He maintained that a vigorous mind can fathom all spiritual mysteries by means of reason alone; that in fact faith only comes in to supplement a lack of reasoning power. And from the principles of his philosophy he drew this conclusion among others: that the body of Jesus Christ was not formed from the blood of the Virgin, but from some other substance, specially created for the purpose.

Apart from the heretical tendencies of brother Saint-Ange, the very principle from which he drew them was judged worthy of condemnation by Pascal. This principle was contrary to all the teaching he had received. It could be no other than an abomination in the eyes of one who had learnt from Jansenius that to attribute to man's natural faculties the power to take part in the work of his own salvation was to make the sacrifice of the cross of none effect.

Having been told that brother Saint-Ange had been talking of his ideas to some young men, Pascal and two of his friends went to see him and pointed out

the wrong he was doing. But in vain; brother Saint-Ange persisted. Whereupon Pascal and his friends, dwelling with anguish of mind on the danger of allowing such teaching to be given to the young, resolved first to admonish the brother and if that failed to denounce him to his superior. He took no notice of their admonition, and was accordingly denounced by them to M. Camus, formerly Bishop de Belley, the friend and disciple of Saint François de Sales, and at that time suffragan of Monseigneur de Harlay, archbishop of Rouen. The brother, on being examined by M. Camus, managed to hoodwink him by a confession of faith drawn up and signed by himself. Upon learning this piece of deception, Pascal and his friends at once went to Gaillon to interview the Archbishop of Rouen, who ordered that brother Saint-Ange should be made to retract. He did so, and, as it would seem, sincerely, says Mme. Périer, for he bore no grudge in the future towards the instigators of the affair.

This incident serves to show Pascal's impetuous disposition. Disease, however, was making more and more inroad upon a constitution already undermined by the prodigious amount of application he had given to the sciences. His state of health became so unsatisfactory that the doctors forbade study of any kind. He was unable to walk without crutches, the lower part of his body being almost paralysed and his feet and legs as cold as marble.

It was in all probability at this period of his life that he wrote the *Prière pour demander à Dieu le bon usage* des maladies (Prayer for the sanctification of bodily affliction) a prayer whose utterances are based upon a theory altogether scientific in its clearness.

Granted that disease is an evil—and sometimes an incurable evil—the problem is to render it bearable and even, if such a thing may be, so to use it as to turn it into good. The christian doctrine furnishes the solution of this problem.

To begin with, it explains the existence of disease. It teaches that man has sinned and is, in his present unregenerate condition, under the dominion of his sin. Having detached himself from God and turned to the things that perish, he is henceforth attached to these objects. Now God is at once justice and mercy. In his justice he imposes suffering upon man as an expiation; in his mercy he offers it to him as a means of detaching himself from earthly things and setting his face towards his true goal.

But how shall suffering be enabled to have this two-fold result? Will it suffice that I bow beneath it with resignation after the manner of the heathen? If in my manner of accepting it there is nothing more than what comes from myself, then my suffering is no higher than myself and cannot save me. Shall I then ask of God that he will free me from the sickness and the pain? This would be to claim, while yet under trial, the reward of the saints and the elect. My sufferings must needs continue, and they must become the channel through which grace may enter in and change my heart.

Now since the coming of Jesus Christ, who suffered all the pains that we deserved, suffering has become a link of resemblance, a link of union, between man and God. Moreover, it is the only link between them in the life that now is. By means of suffering then, does God draw near to the human soul. It is enough if in his love the agony of the sinner is made one with the agony of the Redeemer. Jesus Christ, by taking my sufferings upon himself, imparts to them that purifying and renewing virtue which only divine power can bestow.

Thus does the christian doctrine by its very explanation of the evil also provide its remedy. It not only renders bodily suffering bearable but also shows it to be the surest means of our conversion and sanctification.

If in this prayer the conception is of the clearest, the feeling is no less deep and strong. Pascal reproaches himself for having loved the world in his days of health; and alas, in spite of an awakened conscience its delights are still alluring. O that God would enter into his heart by force, as a thief into the strong man's house, and seize the treasures of affection that are his by right but have been laid up there by the love of the world. God is the true end of man. Happy the man who can love an object so delightful, the only one on which the human heart can rest without dishonour. Happy they whose will is set in this direction, so that without let or hindrance they love perfectly and freely him whom it is their destined end to love.

It is beside the mark to inquire whether this prayer is Jansenistic or no. It is assuredly a work of exact conception and scholarly demonstration; yet it is at the same time the outburst of a very ardent and simple heart moved directly by the vision of truth and by filial confidence in the mercy of the divine Father. Thought itself, while losing nothing of its clearness, here throbs with life and passion; and the most spontaneous outpourings of love are made to follow the leadings of an inflexible logic.

In the autumn of 1647, his health having slightly improved, Pascal undertook a journey to Paris with a view to consulting the doctors. He was accompanied thither by his sister Jacqueline. In Paris they heard some talk of the sermons of M. Singlin. His preaching was just then making a great stir, and the most illustrious persons were flocking to hear him.

M. Singlin was confessor to the recluses and nuns of Port Royal. In accordance with the spirit of that community he had no thought of shining or posing as an orator. On the other hand, he was free from the triviality still often to be found among the preachers of the day. His speech was simple and earnest, aiming only to touch the heart. And in this he succeeded marvellously; for so true and searching were the pictures he drew of human nature, in its wretchedness, its sorrows and its needs, that each one of his hearers recognised himself and imagined himself to be specially addressed by the preacher.

When Pascal and his sister Jacqueline went to hear him, they noticed that he was not in sympathy with those who hold that a christian can take part in worldly life, but rather looked upon earthly attachments as a subject for remorse and fear to him who would live according to the will of God. These utterances fell in with their already conceived idea of the christian life, and they made a point of attending the sermons assiduously.

Before long, Mlle. Pascal, having learnt that M. Singlin held the position of confessor at Port Royal, began to think of becoming a nun in this monastery. Her brother encouraged the idea, and through the offices of M. Guillebert, who was living in Paris at the time, she was introduced to Port Royal. Welcomed there by the stern, intrepid abbess, Mother Angélique Arnauld, she became a frequent visitor at Port Royal des Champs (Port-Royal-in-the-Fields). Here she placed herself under the spiritual direction of M. Singlin, and received the counsels of the gentle Mother Agnes, the sister of Mother Angélique.

M. Singlin was not slow to remark in Jacqueline the signs of a genuine call. He considered, however, that her father ought first to be consulted. Blaise undertook the task of laying the matter before Étienne Pascal who had returned to Paris in the month of May, 1648. The latter could not bring himself to part from his daughter, and withheld his consent. Still, he rejoiced over her whole-hearted devotion and gave her perfect freedom to carry out her chosen way of life under his roof. So she continued to live in accordance with the timely counsels of Mother Agnes, with whom she corresponded.

Pascal was in sympathy with her, as may be seen by the letters addressed sometimes by himself alone, sometimes by himself and Jacqueline, to Mme. Périer. He read the publications of Port Royal and those of its adversaries, and was on the side of Port Royal. But it was in his own way, and according to his own

views of what was right. Thus, when talking one day with M. Rebours, confessor at Port Royal, he told him with his usual frankness and simplicity that he considered it possible to demonstrate, by the principles of common sense alone, many things that were a stumbling block to advanced thinkers; and he gave it as his opinion that sound reasoning encouraged a belief in these particular tenets, though it was nevertheless the duty of a christian to believe them without the aid of reasoning. Now M. Rebours was thereupon somewhat disquieted and, calling to mind Pascal's exhaustive studies in geometry, he said it was to be feared such talk savoured of vanity and over-confidence in the power of human reasoning. At this reply, Pascal searched his own heart, but finding there nothing of what M. Rebours apprehended, he contented himself with admitting with a good grace that the feeling attributed to him would have been a sin had it existed, and apologising for having caused a misapprehension. Still he withdrew nothing of what he had said, even though his excuses were liable to be interpreted as a sign of hardness of heart.

Furthermore he was convinced that nothing pertaining to humanity can be in itself an end for the activity of the christian soul. It was in blindness of heart that the Jews and the pagans took the sign for the reality, and rested on the love of the creature as on the appointed good of the human soul. Those to whom God has made known the truth know that the creature is but the image of the Creator, and they also make use of this image in order to rejoice in Him whom it represents. To rest satisfied with the possession of the creature is to

be content with a limited perfection only befitting the children of the world. But to the children of God it has been said: Be ye therefore perfect, even as your father which is in heaven is perfect. Never can these be at rest in a state of partial perfection. No sooner do they relax their efforts to rise than they begin to decline. In God alone do they find stability and repose.

Such being the views held by Pascal after the true nature of the christian life had been revealed to him. it would seem superfluous to ask if, at the same time, he was continuing to apply himself to the sciences. Would not the renunciation of the world mean for him first of all the renunciation of that one vanity which above all others had led his soul astray. Mme. Périer understood it thus; for she places Pascal's experiments on the subject of vacuum before his conversion, and says this event marked the close of his scientific researches, at least of those to which he seriously applied himself. But such was not really the case; and it was during the very period we have just been considering that he conceived and carried out those fine experiments in physics to which so much of his fame is due.

In October, 1646, Étienne Pascal and his son received a visit at Rouen from M. Petit, a cartesian and a clever experimentalist, who described to them the recent experiment made in Italy on the subject of nature's abhorrence of vacuum. Pascal and M. Petit repeated the experiment. What could it be said to prove? Habituated as he was to distinguish between the fact and the explanation, and to beware of

hypotheses, Pascal considered it impossible to pronounce judgment until he had thought of some fresh experiments that would serve to eliminate mistaken interpretations and bring to light the true one. Moreover he did not know of the explanation advanced by Torricelli. He did not even know that Torricelli was the author of the experiment.

The question as it presented itself before him was as follows: What does the Italian experiment prove with respect to the proposition of the abhorrence of vacuum? The question differentiates itself thus: Firstly, does nature, in this phenomenon, show a tendency to refuse a vacuum? secondly, does she succeed in this, or does she allow a real vacuum to be formed? By way of putting nature in a position to pronounce on these questions, Pascal invented fresh experiments, made with all kinds of liquids, water, oil, wine, etc., and with tubes of all lengths and dimensions. He worked them in the presence of many witnesses in order to court objections.

These doings made a great stir in Europe. A brief account of them was written by Pascal and appeared on October 4, 1647, under the title of Nouvelles expériences touchant le vide (New experiments in the nature of vacuum). His conclusions were as follows: Firstly, nature abhors a vacuum, though it cannot be asserted that she in no case admits it; secondly, the abhorrence is no greater for a large than for a small vacuum; thirdly, the force of this abhorrence is limited. This is the extent of the results he draws from the Italian experiment in October, 1647; and important results they are from the philosophical point

of view, affirming as they do, in the name of facts, the existence of vacuum, once declared by Aristotle, in the name of reason, to be impossible, and regarded with suspicion by the orthodox because it had been so often made use of by unbelievers in explaining motion without reference to God.

There was no lack of opponents to Pascal's conclusions. The most zealous of them was Father Noël, of the Company of Jesus. This father was of the peripatetic following, but willingly borrowed from Descartes any arguments that seemed to him apt to support his opinions. This was not lost upon Pascal; and his criticisms now and again touch upon the cartesian methods without mentioning them directly.

The reverend father's attack was not free from irony. Pascal replied with spirit. Where the sciences are concerned, he said, we believe only at the bidding of the senses and the reason, reserving for the mysteries of faith, revealed to us by the Holy Spirit, that submission which asks no physical or rational proof. But you, if you please, figure to yourself, according to your own fancy, a matter in which you suppose certain qualities, a subtle ether, able to rise and fall; and if we ask you to show it to us, you say it is not visible. Your hypotheses satisfy you; that is to stand to us in the place of demonstrations. Moreover you give definitions of the terms you employ; but in these definitions the term to be defined does all the work. This is how light is defined, in the sentence preceding your closing salutations. An illuminating movement of rays composed of lucid, that is luminous, bodies. Here we have a style of definition to which, bearing in mind the conditions of a genuine definition, I should find it somewhat difficult to accustom myself. Such, reverend father, are the sentiments of one who yet remains your most obedient servant.

Father Noël replied, forwarding his letter by the hands of Father Talon, with a message to the effect that, being aware of Pascal's illness, he would exempt him from answering it.

Pascal, who was in truth in great suffering, did not write for some time, in fact not until he learnt that some of the fathers, having no doubt received a mistaken version of Father Noël's intention, were interpreting his silence as a confession of defeat. Had any other than this worthy father been concerned, it might indeed have been suspected that his permission to Pascal was a covert request to him to refrain from answering. Pascal did write, addressing himself this time to M. le Pailleur and giving him his opinion upon Father Noël's reply. This letter is a most direct attack on cartesianism. We have no right, he says, to exalt definitions into realities under pretext of making things clear and distinct. The seeming vacuum at the top of a tube is not turned into a substance by the mere fact of being called so. I should be only too glad if the worthy father would let me into the secret of this ascendancy of his over nature, by virtue of which the elements change their properties in sympathy with his changes of thought, the universe thus accommodating itself to his fluctuating purposes.

Father Noël's wit, however, rose to the occasion.

He published a pamphlet entitled Le plein du vide (The filling of the vacuum), dedicating it to the Prince de Conti, a pupil of the Jesuits who afterwards became a Jansenist. This purports to be a justification, before his Highness, of Nature whom certain presumptuous individuals have dared to accuse of vacuum. Herein are to be set forth the falseness of the accusations laid to her charge and the impostures of the witnesses brought against her.

Upon this Étienne Pascal interposed and administered to the father such brotherly correction as the gospel precept allows. It is not enough, he said, that you think to foist upon us such unheard of things as the fiery sphere of Aristotle, the subtle matter of Descartes, solar spirits, volatility and suchlike, but forsooth when arguments fail you must take to abusing us. Allow me to remind you that it is a generally received maxim in civilised society that no superiority of age, no position, no office, no legal power, can justify the use of invective against any person whatever.

Such was the intercourse between the Pascal family and the Rev. Father Noël of the Society of Jesus.

Meanwhile, since the month of November, 1647, Pascal had been looking upon Torricelli's experiment in quite a new aspect. He was considering now not whether the space above the mercury is really vacuum, but what cause holds the column of mercury suspended. Galileo had proved that air possesses weight. Torricelli had made the suggestion that atmospheric pressure might be the cause of the phenomenon he had discovered. This suggestion of Torricelli being

now known to Pascal, the latter asserts that it is simply an idea, and must remain only a possible explanation, an hypothesis, until every other explanation shall have been proved by experiment to be impossible. What is wanted then is the contriving of an experiment which shall prove that the pressure of the air is the only admissible cause of the suspension of the mercury in the tube.

That this was the actual cause Pascal had good reason beforehand to admit. Galileo had explained the phenomenon on the hypothesis of the partial abhorrence of nature for a vacuum. But how attribute to nature this quality of abhorrence which is a feeling and pre-supposes a soul, when nature is neither alive nor gifted with feeling? Again, the investigations of Pascal into the general conditions of equilibrium among fluids led him to adopt on this subject a universal principle which justified the explanation given by Torricelli.

The following commended itself to him as the best experiment for settling the question: To repeat several times on the same day the experiment of the vacuum, with the same quicksilver in the same tube, sometimes at the foot and sometimes at the summit of a high mountain. Now if the height of the quicksilver should prove to be less at the top of the mountain than at its base it would of necessity follow that the sole cause of the suspension of the quicksilver is the weight and pressure of the air and not nature's abhorrence of a vacuum. For it is quite certain that there is a much greater pressure of air at the foot of the mountain than at its summit; while, on the other hand,

it will scarcely be maintained that nature abhors a vacuum more at the foot of a mountain than at its summit.

It may be that in planning this experiment Pascal had in his mind the Puy-de-Dôme, at the foot of which his early years were passed. It occurred to him that he might entrust its performance to his brother-in-law, M. Périer, a counsellor in the cour des aides of Auvergne, who was living at Clermont, and to whom he accordingly wrote on the subject on November 16, 1647, giving him all needful instructions, theoretical and practical.

Circumstances prevented M. Périer from performing the experiment until September 19, 1648, when it proved a complete success. For M. Périer established the fact that in proportion as he ascended the mountain the height of the column was lowered, and this always in the same ratio. He wrote a detailed account of it to Pascal, who then repeated the experiment at the base and the top of the tower of Saint Jacques de la Boucherie, then again in a house which had ninety stairs: always the same result.

This fact once thoroughly established, Pascal drew from it its logical consequences. The principle that nature abhors a vacuum, universally held by the consent of nations and by the bulk of philosophers, must be rejected, not in part, but absolutely. No matter though human reason may adjudge it true, since experiment finds it wanting. The pressure of the air is the sole cause of the phenomenon; here is the true explanation as proved by facts, and the dreams of philosophy may be left out of account. Thus in the

eyes of Pascal this discovery had a logical and moral significance as well as a scientific one.

With all the joy and pride he felt in having achieved the final settlement of this question, he had no thought of supplanting Galileo and Torricelli. While giving each of them his due, he was conscious that by making use of the work of these great men he had been able to extend our knowledge of nature still further than they. He rejoiced in this progress of which he was the instrument, and was ready to rejoice yet more whenever he should learn that some one else had reached a still further point.

This success gave offence to the Jesuits, and in the theses propounded in their college at Montferrand they accused Pascal, without mentioning him by name, of having claimed for himself the invention of a certain experiment of which Torricelli was really the author. Pascal, distressed by such an accusation, wrote to M. de Ribeyre, president of the cour des aides at Clermont-Ferrand, to whom the theses were dedicated, giving a detailed account of his experiment. M. de Ribeyre was of opinion that he made too much of the matter. The worthy father had no doubt been induced to utter such a statement simply from an itching desire to produce some experiments of his own by which he thought to lessen the value of Pascal's, but which in reality were themselves valueless. Besides, had he not averred that he meant no harm; and as for what any one should say against Pascal, it was beneath notice.

"I know too well your good faith and honesty," said M. de Ribeyre, in conclusion, "to believe that

you could ever be convicted of acting contrary to that uprightness which you not only profess but show forth in your actions and your manner of life."

But Pascal's memory was to be put to a severer test in the future.

Between the date of the Rouen experiments and that of the letter to M. Périer, Pascal had had two interviews with Descartes in Paris, on September 23 and 24, 1647. He was very ill at the time, and barely able to carry on a conversation. Descartes showed great concern for his health, advising him to stay in bed every day until he was weary of it, and to take any amount of broth. He did not fail, however, to get upon scientific questions with the young scholar to whom he had come to pay his respects. The subject of vacuum was raised; and when Descartes was asked, in regard to a certain experiment, his opinion as to what the syringe contained, the philosopher answered, with grave decision, that it was some of his subtle matter. To this Pascal made what answer he could, and M. Roberval, who was present, understanding that Pascal was only able to speak with difficulty, took up the argument with M. Descartes with some little heat. They went away together and, when alone in the carriage, fell to abusing each other in good earnest.

So much on this subject, and no more, is contained in a letter written by Jacqueline to Mme. Périer on the day after the second interview.

But later, on June 11, 1649, Descartes, when begging Carcavi to let him know of the success of Pascal's experiment, writes thus:

"I ought really to look to him rather than you for this information, because I was the one to advise him two years ago to work such an experiment, and to assure him that although I had never tried it myself I had no doubt of its success."

And on the 17th, once more writing to Carcavi, he says again:

"It was I who begged M. Pascal, two years ago, to undertake it, assuring him that it would be successful as it was entirely in accordance with my Principles. Otherwise, he would scarcely have been likely to think of it, being himself of a contrary opinion."

Now it is on the authority of these statements by Descartes that Baillet, in his Vie de M. Descartes, after him Montucla in his Histoire des mathématiques, and, following them, some learned critics of the present day, attribute to the author of the Principles the invention which Pascal claims as his. They assert that as early as 1631 Descartes, in one of his letters, spoke of the pressure of the air as the cause of the suspension of the quicksilver; that he suggested this explanation afresh in 1638; and, further, that while we know Pascal to have been of an excitable and impulsive temperament, the balanced character of Descartes forbids any hesitation in accepting a statement definitely made by him.

This dispute was a miserable affair enough, and, whichever way it was settled, was sure to leave a painful impression. Yet it seems likely that posterity

has waxed more wroth over the matter than did the parties concerned.

For the scientific relations existing between Descartes and the Pascal family were continued just as before, in spite of the incident we are considering. In 1650 M. Périer and Descartes, through the medium of M. Chanut, French ambassador at Stockholm, exchanged observations on the suspension of the column of mercury. And, on the death of Descartes, M. Chanut made known the event to the Pascal family in terms which implied great mutual esteem, making special and very appreciative mention of Blaise.

Moral reasons apart, there are facts which point to Pascal as the inventor of the experiment. elements were already in his possession. He was prepared with the idea of atmospheric pressure as a probable cause of the phenomenon, witness the letter written by Jacqueline; in his view it followed naturally upon his general theory of the equilibrium of liquids; he was busied, as was his custom, in finding convincing experiments on this subject; he was familiar with the idea of observing the evidences of weight at different altitudes as a means of discovering whether phenomena of this kind were due to an inherent quality or to some exterior cause. For in 1636 Étienne Pascal and Roberval had suggested to Fermat this very means of finding out whether weight is a quality of the falling body, or the result of attraction exercised by some other body. only then to reflect upon ideas already present in his mind in order to continue his experiment.

The matter was thus understood by his contem-

poraries. For when Pascal had formed his plan he took his friends into his confidence. Mersenne mentioned it to his correspondents in Holland, Italy, Poland, and Sweden. It was everywhere spoken of as the projected experiment of young Pascal; and widely as this announcement was spread nowhere did it meet with any contradiction.

What, however, are we to think of the assertions of Descartes? We learn from them that during the conversation which took place between himself and Pascal they spoke of an experiment on the question of vacuum, to be made at various altitudes; and that Descartes advised Pascal to undertake it, assuring him that, according to his Principles, it must succeed. This was scarcely the argument to appeal to Pascal. But did Descartes do more than give advice? Was the experiment his suggestion? One would think so from his assertion that but for his advice Pascal "would scarcely have been likely to think of it, being himself of a contrary opinion." We know, however, for a certainty that this sentence does not contain the exact truth; that Pascal by no means held a contrary opinion; that he was really more inclined than Descartes himself to look upon the theory of a column of air as the only possible solution; and that what difference of opinion existed between him Descartes was only concerned with the steps by which they reached the same conclusion. Without dreaming for a moment of casting doubt on the good faith of these two great men, concerning whom all who knew them testify to blamelessness of life no less than to soundness of knowledge, we may assume that Descartes, under the impression that Pascal was opposed to his *Principles*, believed that he could not have been the first to entertain the idea of an experiment which Descartes regarded as confirming them. He had talked more than Pascal, who was ill and slightly out of humour; he was not altogether conversant with Pascal's ideas, and did not precisely recall what the latter had said to him.

To Pascal then belongs of right the famous experiment that bears his name; an experiment in itself noteworthy, and rendered more so by its connection in Pascal's mind with a general theory of the equilibrium of fluids, whether liquid or gaseous. He propounded this theory in the Traité de l'équilibre des liqueurs and in the Traité de la pesanteur de la masse de l'air, written in 1651. His skill in generalising, which had already done him good service in mathematics, here achieved one of its finest results. Pascal established a complete analogy between liquid and atmospheric pressure.

Scholars were misled by a false principle, claiming to be Aristotelian, which denied to the elements the property of weight. In vain had Stevin of Bruges, in 1548, made known the transmission of pressure in water; his discovery had been suffered to remain unheeded. Pascal revived this idea. And by that happy combination of reasoning and experiment of which he possessed the secret, he succeeded in formulating, in terms to some extent definitive, the principle of hydrostatics:

[&]quot;If a vessel full of water and closed at all other

points have two openings, the one a hundredth part of the other in area, and each provided with a tight-fitting piston, one man pushing the small piston will balance the force of a hundred men pushing the piston a hundred times larger in area, and will overcome the force of ninety men pushing the larger piston."

In accordance with this principle, Pascal demonstrated the pressure of the air by analogy, using water in place of air in the vacuum experiment; thereby proving that to the weight of the air must now be attributed all the effects hitherto considered to be due to nature's abhorrence of vacuum; such as the difficulty of opening sealed bellows, the rising of water in the syringe, etc.

In the persistency with which Pascal follows up in detail the consequences of a general law which he has formulated, he shows himself the true physicist; at the same time, his reflections on the manner of the growth and development of science proclaim the philosopher. His letters to Father Noël and M. Le Pailleur are rich in reflections of this kind; and in a little work entitled *Préface sur le Traité du vide*, which was probably written in the course of 1647, he gives the outline of a philosophy of physics.

There are, he says, two kinds of objects of knowledge: Firstly, those which depend on memory; these are either matters of fact or matters of institution, human or divine; secondly, those which come under the senses or the reason; these are truths to be discovered, and

form the object of the mathematical and physical sciences.

These two domains are entirely separate from one another. In the first authority reigns alone. In fact the knowledge of past events can only come through her. In theology especially she is supreme, able of herself alike to exalt into verities some things which the mind cannot grasp, and to declare uncertain those which seem the surest.

But in the domain of physics and mathematics authority has no power. This is easily granted in the case of mathematics. In physics, the problem is to find out the laws of nature; that is to say, the unvarying testimony of phenomena. Now authority is useless for the knowledge of facts which are passing under our eyes, nor can she prove that such facts are to be explained by this or that natural cause. Neither will mathematics serve us in this case. For the only definitions we could form and use as the basis of our reasoning on these matters would be mere fictions of our own mind, and nature would be by no means bound to conform to them. Experiment and reasoning; the former as both point of departure and verification of the latter: such is the only method.

From this difference of method arises an important difference of character between theology and physics. Theology is stationary; the science of physics is subject to continual progress. The presumption of those false philosophers who claim for Aristotle the inviolable respect that is due to God alone must be brought low. The twofold principle on which the study of the physical sciences is based ensures their progress. On

the one hand experiments are continually multiplying, each one of them bringing some fresh knowledge, either positive or negative. On the other hand, human reason is not as the instinct of the brutes, before whom there lies no goal of desire, and to whom the instinct that maintains them at the level of their limited development is all-sufficient. But because before man there lies the goal of the infinite his mind must ever be moving towards perfection. He starts in ignorance; he gains experience which forces him to reason; and in turn the results of his reasoning go on increasing indefinitely. Hence, thanks to memory, thanks to the several means by which man is able to preserve the knowledge he has gained, not only does the individual make his own daily progress in various branches of knowledge, but there goes on a continual collective progress. "So that the whole of humanity, through all the ages, is as a man that lives and learns for ever."

What then is our true relation to antiquity? Words are misleading. For those whom we call the ancients of the world were in very truth its children, to whom all things were new. It is we ourselves that are really the ancients, and if respect be due to them it is we who may claim it. Yet after all there is but one thing which can claim respect; that is truth, which knows not youth nor age but eternally abides. Did some of the ancients achieve greatness, it was because in their efforts to do so they only made use of the inventions of their predecessors as a means of superseding them. By what right are we forbidden to act thus in our turn in regard to them?

This utterance of Pascal is not simply an echo of the protest of the Renaissance against the superstitious cult of antiquity. On the whole his tendency is to revive rather than to check the study of the ancients. His theory of progress allows him to do justice to them without endangering the cause of free investigation. He sees in the knowledge they have passed on to us the steps by which our own has been gained. Our standpoint is, as it were, on the shoulders of our predecessors, whence the wider view is more easily, if somewhat less proudly, obtained. Their knowledge advanced side by side with the facts they possessed. For example, since all their experiments went to show that nature does not allow a vacuum, they were justified in asserting that such was the case. To have come to any other conclusion would have been to substitute an intellectual opinion for facts in so far as they were known to them.

On the other hand, the progress of which Pascal speaks is strictly confined to the realm of science, and has nothing to do with the moral life. Nor does he assign even to intellectual progress that character of a natural and necessary law attributed to it by Turgot and Condorcet. It has nothing in common with an evolution which should modify the nature of our faculties. This progress is a progress in knowledge only, every step in which is due to the inventions and labours of men, and is not the result of an inevitable law.

Thus we see Pascal during 1646 and the following years devoting himself to researches in physics and philosophy. The tone of his writings and correspond-

ence leave no room for doubt as to his inclinations at this particular time. He was still attached to natural science. Now it was at the beginning of this same year 1646 that he had become a convert to that austere form of christianity which in no wise allows the soul to divide its allegiance between the world and God, and which reserves its severest condemnation for the lust of the intellect; that is to say, scientific curiosity. Nor is there anything in what we know of his religious life during this period which suggests backsliding or change of any kind. What then was his actual condition of mind?

He had studied the sciences, and loved them passionately. Yet for all this they did not wholly possess him. For they deal with abstractions, leaving the human side of life untouched, and could never absorb such a nature as Pascal's with its profound craving for life and feeling. On the other hand, he had been made aware of what God demands from those who profess to serve him. Indeed so strongly was this borne in upon him that he embraced the doctrine of self-renunciation in all sincerity, recognising its reasonableness and its conformity with the teachings of Jesus Christ. But this faith was communicated to him from without, and was rather the intellectual acceptance of a belief than the upspringing of faith in a heart that has been moved by grace.

To speak truth then, he has as yet cast in his lot neither with science nor with religion, but is contemplating the truth of each from the position of an outsider. Thus it is that he is able to turn now to the one and now to the other of them. Does his mind dwell on things divine? Then naught else has any existence for him. But let a scientific question be put before him, and at once his fancy turns to this new object. He who aforetime allowed God and the world to share his life now oscillates between them. Is it possible such a state of things should be a lasting one? Is it not just the condition in which a man is most apt to be at the mercy of the accident of the hour?

CHAPTER III.

LIFE IN SOCIETY. MATHEMATICAL WORK.

PASCAL'S health had long been impaired and, in spite of his admirable patience and the persistent application of remedies, showed no sign of improvement. The doctors were of opinion that excessive work was the chief obstacle to his recovery. accordingly advised him to give his brain a complete rest and to take every opportunity of relaxation. Now Étienne Pascal, seeing that his daughter Jacqueline had remained with him instead of entering the monastery of Port Royal, was doing his best to revive her old love of society. He now resolved to take his son and daughter into Auvergne, where he had numerous connections, hoping thus to change the current of their thoughts. Thither the family went in May, 1649. Jacqueline's condition of mind remained entirely unaffected by this change. But Blaise, torn from the joys of scientific research, went into society for the sake of occupation; and it was not long before he began to relish the new life. He took to play and like diversions by way of passing the time, and gave himself up to the amusements of society. His morals, however, were above reproach.

On the return of the family to Paris, probably in November, 1649, Pascal began to associate with several persons of a distinctively worldly type. First there was his neighbour the Duc de Roannez, a youth of about twenty, to whom he was drawn in the first instance

by the similarity of their scientific tastes and pursuits. Between a dissolute grandfather and a careless mother the duke was left at the mercy of any fate which might befall his youth and exalted rank. Being of a confiding and faithful disposition, he formed so strong an attachment to Pascal that he could scarcely bear him to be out of his sight. Then there was the Chevalier de Méré, a native of Poitou, with his persistent cult of the honnête homme. He was a purist and a précieux. He affected simplicity, naturalness, and good sense. He looked upon the things of the mind and heart as belonging to a world of their own, apart from and far higher than the natural world. There was Miton, the freethinker, so quick to discover the vanity of all the doings of mankind, and withal so serenely unmoved at his own pessimistic observations. Pascal used also to visit Des Barreaux, a pleasure loving Epicurean and atheist who, when his health failed, took refuge in religion; likewise Mme. d'Aiguillon, cardinal Richelieu's niece, who had sent for Jacqueline Pascal when a child to take part in a comedy; and the Marquise de Sablé, who held a brilliant salon of précieuses.

He was only in course of cementing these friendships, but had already become pretty much at home in society, when, on September 24, 1651, he lost his father. This event was not only a source of cruel and profound suffering to Pascal, whose family affections were very tender, but it also recalled his mind to meditate afresh upon spiritual things. He looked to religion for some grounds of consolation and, having found them, hastened to impart them to his family. They are

propounded in a letter written to M. and Mme. Périer on October 7, 1651.

His thought is unfolded on the lines of the strictest logical progression. In fact, he held that the heart must accept what the intellect recognises as true.

What we seek is consolation and, if such a thing may be, the turning of evil into good. But whence can real and solid consolation come, save from the truth? It behoves us then first of all to satisfy our intellect as to what death really is. Then we shall be ready to make use of this knowledge as a guide to our judgments and conduct concerning it.

The pagan conception of death is that it is a physical thing. Were that so, it would of necessity be an evil, for then it would be in very deed what it seems: corruption and annihilation. And there would be no more place for hope. But from the truth, as taught us by the Holy Spirit, we learn that death is an expiation and a means of setting us free from the lust of the flesh. Such is its signification in Jesus Christ; such also in ourselves if we die with him.

There remains the instinctive horror of death, so difficult to subdue. Yet over this also we shall rise triumphant when once we understand its source.

According to christian doctrine, our present love of life is the perversion of a divinely implanted desire for eternal life. God having withdrawn his presence from the soul of man by reason of his sin, the infinite void he left has been filled by our own self and the things of this present life. And henceforth our love, not knowing where to cling, has fastened upon these objects. The dread of death, from which we suffer,

arises from this misdirected love, and is at bottom the primal dread of the death of the soul, which has been turned aside from its proper object and mistakenly applied to the death of the body. There can be no question then of abolishing the fear of death; that would be impossible. What we have rather to do is to bring it back to its original form. The more we learn to dread spiritual death the less shall we fear the death of the body.

Does this mean that we can learn to look upon the death of one dear to us without some natural suffering? This we are not able to do, nor indeed are we called to it. For the work of grace, which alone enables us to break loose from what has become our natural habitude, must necessarily feel the brunt of the opposing efforts of our fleshly nature; and the sore bruising of the one is the measure of the progress of the other. Let us then mourn our father; this is right. But let us also be comforted; for this, too, is right. And let us see to it that the consolations of grace prevail over the feelings of nature.

Pascal's deductions are the result of very close reasoning. Maybe the christian is in this instance logical rather than stirred by emotion; yet the man, on the other hand, speaks with singularly profound and delicate feeling of the ways in which the living may show their reverence for the dead.

"I was taught by a saintly man, says Pascal, that one of the surest and most useful ways of showing kindness to the dead is to do those things which they would bid us do were they still upon earth, alike by putting in practice the holy

PORTRAIT OF MOTHER ANGÉLIQUE,

From a Painting by Philippe Champagne.

Mother Angélique wears the costume adopted by the Port Royal nuns as Daughters of the Holy Sacrament. They retained the habit of Saint Bernard, merely changing their black scapulary for a white one with a scarlet cross in front. These colours were intended to signify the bread and wine which are the elements under which Jesus Christ is hidden in the mystery of the Holy Sacrament.

The Testament held by Mother Angélique is open at the words: Seek ye first the kingdom of God and his righteousness, and all these things shall be added unto you. The inscription below the portrait is as follows:

La Mère Marie Angélique Arnauld dernière Abbesse titulaire de Port Royal Ordre de Cisteaux qui n'estant agée que de dix sept ans fut la première de cet Ordre en france qui renouvella dans son Abbaye l'estroite observance et l'ancien esprit de S. Bernard. Son humilité luy ayant toujours donné un extreme desir de quitter sa Charge, elle l'executa en 1630, ayant obtenu permission du Roy de la rendre elective et trienniale. Elle est morte le 6 d'aoust 1661, agée de 70 ans. Tous ceux qui l'ont connu ont admiré entre ses autres vertus cette charité si ardente et si desinterressée qui l'a rendue Mère de tant de filles sans y considerer que les richesses de la grace et ne lui a jamais permis d'en refuser aucune pour le manquemt des biens temporels.

(Mother Marie Angélique Arnauld, last titular Abbess of Port Royal of the Cistercian Order, who when no more than seventeen years of age was the first of her Order in France to revive in her Abbey the strait observance and the ancient spirit of Saint Bernard. Her humility having always caused her to desire release from her charge, she carried out her wish in 1630, after having obtained leave from the king to make the office elective and triennial. She died on the sixth day of August, 1661, at the age of seventy years. All those who knew her admired among her other virtues that charity, so fervent and so disinterested, which made her to be the mother of so many spiritual daughters, in whom she recognised no riches but the riches of divine grace, and which never allowed her to refuse any for their lack of worldly goods).





counsels they gave us and by placing ourselves for their sake in such a position as they would now desire for us. So shall we cause them, in a manner, to live anew in us, since it is their counsels that are yet living and acting within ourselves."

Not yet, it would seem, does Pascal feel himself to be finally won over to religion. He avows that had he lost his father six years earlier, at the time of his accident, he would have been lost, and that even as it was, he needed him for ten years longer. And, as a matter of fact, it was not solely in the consideration of death from the christian point of view that he sought alleviation for his grief, but also in the charms and occupations of society. He enlarged the circle of his acquaintance, and consorted with wits and free-thinkers. Little by little he lost the habit of looking at all things in the light of their relation to the divine, and of submitting to this test his every thought.

This was how he came to make what was, from his point of view, a very natural request of his sister Jacqueline, in whose companionship he found much consolation. He begged that she would postpone for at least a year her entrance into the convent, so that she could remain with him. Jacqueline, dreading to add to his suffering, forbore to answer. But she confided to Mme. Périer her intention of taking the veil as soon as the division of the family property had been completed.

Pascal, meanwhile, by arranging mutual transfers, succeeded in converting Jacqueline's share into an annuity, which would be forfeited by law on the day that she became a nun. The settlements were signed on December 31, 1651, and Jacqueline determined to enter Port Royal on the fourth of January following, she being then twenty-six years and three months old. On the evening of January 3, she approached her brother on the subject of her leaving; but he avoided her and betook himself sadly enough to his own room. She slept peacefully, and went away the next morning, saying farewell to no one lest she should break down.

Two months later, on March 7, 1652, Sister Jacqeline de Sainte-Euphémie wrote to inform her brother that she was soon going to take the veil and begged he would be present at the ceremony. She asked his consent with a mingling of loyal affection and inflexible determination, entreating him to do in the spirit of charity what he must needs do even though it were against his will. The next day Pascal arrived, indignant and suffering from violent headache; but he was quickly mollified, and after beseeching Jacqueline to wait two years, then six months, being gradually wrought upon by her loving persistence, and further yielding to the arguments brought to bear on him a few days afterwards by M. d'Andilly, brother of Mother Angélique, he ended by saying he was quite willing it should take place at Trinity, as she desired.

The investiture accomplished, Jacqueline, after her year's noviciate, was prepared to take the vows. She now made known to her brother and sister her wish to present to Port Royal as dowry the share of the family property that fell to her. This proposal was most unwelcome to them both, and each of them independently wrote her a letter in the same strain,

reminding her of the agreement entered into among them at the time of the division, and accusing Jacqueline of wishing to disinherit them in favour of strangers.

Mlle. Pascal felt her pride rebel at the thought of having to allow herself to be admitted gratuitously. At Port Royal, however, the one concern was spiritual welfare. The kind and tender-hearted mother Agnes made light of it, telling Jacqueline in her sprightly manner that it would be a disgrace should a Port Royal novice distress herself about so trifling a matter as that of being received without dowry. With the prudent M. Singlin, the one thought was the avoidance of any disturbance which should annoy or alienate the Pascal family. Mother Angélique, true to the spirit of Saint Cyran, would have no pressure brought to bear upon Jacqueline's relatives; but quietly pointed out to her that an impulse of true charity was not to be looked for from a worldling. Now, said she, the person most nearly interested in this matter is too much one with the world, nay, even with its frivolities and amusements, to make it possible that he should be ready to gratify your wish to present this gift, when it would be at the expense of his own individual gratification. Such a thing could not come about save by a miracle; and by that I mean a miracle of nature and affection, for the conditions forbid any expectation of a miracle of grace.

Pascal, however, on going to see Jacqueline and realising her distress, made up his mind to please her and himself to sign a deed of gift to Port Royal. But the Mothers did not yield without difficulty. He

must give as prompted by the Spirit of God; otherwise they would prefer that he gave nothing.

"While M. de Saint Cyran lived," declared Mother Angélique, "we learnt from him to receive for the house of God nothing that does not come from God. Whatever is done from any motive other than that of the highest love is not the fruit of the spirit of God, and therefore it does not behove us to receive it."

Thereupon Pascal, determined to acquit himself honourably, protested that he was giving in the required spirit, and there the affair ended. Had he been acting from interested motives? We may suppose he had greatly longed to keep Jacqueline with him, and had taken it ill that she should alienate part of the family patrimony for a purpose with which he had no sympathy.

The vows were taken on June 5, 1653. Pascal, writing to M. Périer on the day after the ceremony, preferred to say nothing about his own feelings on the occasion.

Whilst his interest in spiritual things was on the wane, his interest in worldly things was increasing. He became more and more absorbed in the pursuit of pleasure, never, however, going the length of any irregularity of life. Besides, his fortune was insufficient to allow of his living as did others of his station. But above all, his character was his safeguard against any unlawful attachment. He gave himself up to his love for science, and eagerly seized every opportunity of advancing it. Even when engaged in play, he

busied himself with mathematical observations on the subject of chance and probabilities.

He became keenly alive to the lofty character of the intellectual life. The authority of a sovereign and knowledge, he writes to Queen Christina, when sending her his calculating machine, stand to each other as do body and mind; and in so far as the latter belongs to a higher plane than the former, so far does knowledge transcend in dignity the power to command others. The authority of kings over their subjects is but an image and a figure of the authority of mind over mind

Soon, however, by force of circumstances, Pascal's thoughts were led to dwell upon considerations of graver import.

While travelling in Poitou with the Duc de Roannez and Méré, about the month of June, 1652, he seems to have allowed himself to pass among his friends for a mere mathematician, devoid of taste and feeling. Méré relates of him what may very well be true, that his eccentric way of dragging geometrical arguments into the general conversation made him ridiculous in the eyes of his fashionable friends; that suddenly becoming aware of this he relapsed into silence and, what was very remarkable, in quite a short time fell into his companions' way of talking and almost always said something worth hearing. Ever after this journey, adds Méré, the great mathematician troubled himself no more about mathematics, having then and there as it were abjured them.

Here speaks the coxcomb. For all this Méré undoubtedly had some interesting ideas upon the several

orders of knowledge and the methods that may suitably be applied to them. In a letter he afterwards wrote to Pascal he informs him with his usual self-sufficiency that the mathematical demonstrations, in which he has so much confidence, and the art of reasoning by rule, of which second-rate scholars have made such a point, can only be legitimately applied to fictions and are altogether incapable of imparting to us a knowledge of real things; that, given a seeing eye and a quick understanding, we shall at once notice in any object a vast number of things that the geometrician will never see there: that there are thus two methods: that of demonstration, and that of natural perception, the latter being far superior to the former; and that there are two worlds: the material, which can be seen and reckoned with, and another, invisible and truly infinite, where dwell the correspondences, the patterns, the divine originals of all those things which we seek to know.

Theories such as these could not fail to strike Pascal. Was there then some faculty in human nature higher than the senses and the reasoning power? Was it true that in developing our social qualities by means of intercourse with our fellows we acquire a special keenness and alertness of mind that enables us to get at the heart of things, while demonstration can deduce from the same things nothing but their abstract forms and external relations?

In this disposition of mind Pascal gave himself up more than ever to social life, not even disdaining its lighter side. There have been discovered in a château at Fontenay-le-Comte, a town not far from Poitiers, some lines written on the back of two pictures, in his handwriting, and perhaps composed by him, in which he expresses his thanks to a lady whom he has evidently been visiting with his friends. One verse runs as follows:—

"De ces beaux lieux, jeune et charmante hôtesse,
Votre crayon m'a tracé le dessin;
J'aurais voulu suivre de votre main
La grâce et la délicatesse.
Mais pourquoi n'ai-je pu, peignant ces dieux dans
l'air,
Pour rendre plus brillante une aimable déesse,
Lui donner vos traits et votre air?"

During a sojourn in Auvergne, which seems to have followed the journey to Poitou, at the close of 1652 and the beginning of 1653, Pascal, according to Fléchier, was in the habit, together with two other admirers, of paying his addresses to a learned lady who went by the name of the Sappho of the district, and had not her equal in the town for keen and sparkling wit. She was to be approached with no ordinary compliments, and in her presence Pascal learned to use the niceties of language in dealing with matters of taste and sensibility.

Philosophy was at that time held in high repute. Not philosophy of a technical and speculative character, but that which concerns itself mainly with questions affecting the conduct of life. This phase of thought emanated largely from Montaigne, that marvellous writer who had culled from the works of the ancients their finest thoughts on life and morality and rendered them with an incomparable charm. He affected to despise philosophy and human reason, and

to advocate an irresponsible following of nature and custom; yet how eloquently withal did he expound the noble doctrines of courage and loftiness of mind taught by the stoic philosophers! Thus his writings encouraged at the same time the development of a race of shallow and sceptical freethinkers and the spread of the stoic ideas of duty, energy, and the power of the will.

Pascal was initiated into both these philosophies. He read principally Epictetus and Montaigne, probably studying the Manual of the former in the widely circulated translation of Guillaume de Vair, an eminent magistrate and church patron, and a follower of the stoics. Among Montaigne's writings Pascal gave most attention to the Apologie de Raymond de Sebonde, that disconcerting investigation in which, under pretext of justifying the use of arguments from nature for the proving of spiritual truths, the author succeeds in showing us at one and the same time nature indifferent and reason impotent in this matter, and ends by leaving religion hovering, as it were, in the void, with nothing to oppose it, it is true, but equally with nothing to sustain it or connect it with realities. He also read Charron, the disciple of Montaigne, who says that, seeing we have no means of getting at the truth which dwells, inaccessible to man, in the mind of God, it is for us to renounce the quest of it and seek instead the path of wisdom in a life conformed to our imperfect nature.

To these writings Pascal now devoted himself with growing interest. Epictetus and Montaigne were from

this time forth his constant companions, and the objects of his fervent admiration.

Now, too, he began to be aware of something in Descartes other than he had seen in him before. He discerned, above and beyond the inventiveness of that fine genius, a recognition of the perfecting of thought and of the human soul as the ultimate aim of all our sciences. And he came to have a rare esteem for the metaphysician, whom he used once to flout as a thinker bold in speculation and entirely given over to abstractions.

Thus was opening out more and more before Pascal the essentially human world of whose profundity Méré had boasted. This world found its means of expression in social intercourse; its springs were sounded by philosophy. A man need think no scorn to spend himself for them both; to live and to think as a man. There was a certain beauty and excellence in conforming one's actions to nature. And this same nature was of herself great and powerful enough to lead man on to a perfection strangely transcending the perfection of the body and even of the mind when limited to scientific knowledge.

It was at the time when he was adopting these views of human life, about 1652-1653, that he wrote the curious Discours sur les passions de l'amour (Discourse on the passions of love), the manuscript of which was found by Victor Cousin in the foundations of the abbey of Saint-Germain-des-Prés.

Was this little work a mere jeu d'esprit or the outcome of one of the salon-wagers in vogue at the time; or was it a deliberate attempt on the part of Pascal to show that he could succeed in other fields than that of mathematics?

It is possible it may have been written to order; but one can hardly fail to see something more than a mere display of ready wit in expressions such as these:

"How fortunate is a life that begins with love and ends with ambition! Had I to choose between these two I would take the first. . . . Great souls are not such as love the most often; the love I speak of is a passionate love. The opening of the floodgates is needed either to rouse them or to satisfy them."

Moreover, in making the following observation, the writer would seem to confess that he is drawing upon his own experience for a good deal of what he says:

"One oftentimes writes on matters which can only be proved by the test of universal inner experience. Herein lies the force of the proofs of what I am saying."

This discours may have been, in accordance with the sense of the word at that time prevalent, a dissertation. But after all do not Corneille's heroes reason about their feelings? And according to Descartes and Malebranche it is the perceptions of the understanding that form the starting point of the inclinations of the will.

May we go a step further and ask whether this discourse does not betray the existence of a definite attachment on the part of Pascal although he drops no hint as to the personality of its object? Certain it is that in several passages he gives the impression of taking the reader into his confidence.

"The pleasure of a love that dares not avow itself may have its pains but it has its sweetness too. What ecstasy when all life is centred in the effort to please one being who is held supremely worthy!"

"Sometimes the loved one is of far higher rank than the lover. He feels the flame of passion burn high, but dare not utter a word of it to her who is its cause."

It seems more than likely that Pascal did love someone and even that his love was given to one of higher rank than himself. But it is gratuitous to suppose with M. Fangère that the lady in question was the sister of the Duc de Roannez. There is nothing whatever in the *discours* to suggest this; indeed, if it contains any personal allusion at all it is to someone much older than Mlle. Roannez, who was then barely twenty years of age.

The Discours sur les passions de l'amour is the first work in which Pascal deals with questions of philosophy and life. We have seen him reflecting on the method and scope of science as the object of the human mind. Now it is the soul itself he unfolds to view and undertakes to explore after the manner of Descartes and Montaigne. He builds up a genuine philosophical theory, based partly upon the teaching of these skilful investigators of human nature, but very largely upon the results of his own introspection and observation.

To what end are we placed in this world? To the end that we may love.

The truth is, though on the one hand the essence of our being is thought, yet on the other hand pure thought wearies us. This is because it is still; while we are so formed that we must have movement. Accordingly our nature fulfils itself most completely in passion, which is nothing else than thought touched with movement.

The passions best adapted to fill the heart of man are love and ambition. But love is the master passion; for it unites the greatest reasonableness with the highest pitch of intensity. That is a mistaken idea that would oppose reason to love; they are one and the same thing. Love is a precipitation of thought. ignoring some things, it is true, and strongly developed in one direction, but still always a thought. Were love blind we should be machines, and most disagreeable ones. At the same time, love opens up a power which is in a way infinite. The loftiness of the passions depends upon the extent of the mind's development. Now two orders of mind are possible to man. These may be called the geometrical and the intuitive. The first systematically deduces manifold consequences from one single principle; the second takes in a thousand details at a glance. What pleasure love must afford to him who possesses at the same time both the geometrical and the intuitive mind, logic and judgment, force and flexibility. Being a passion, love is of necessity fluctuating, nay, it is even one of the miserable conditions of our imperfect nature that we have to be at times not conscious of loving at all. Yet we are not therefore faithless to the loved one; we are gathering strength to love better. Rhythm is the artifice employed by nature as her method of advance.

Experience confirms what reasoning demonstrates. We are evidently born with the impress of love on our hearts. This developes in proportion to the growth of the mind and becomes our guide to the choice of the beautiful which of our own accord we recognise and love.

This being so who can doubt that we are placed in this world for no other purpose than to love?

And now what is to be the object of our love? This question is only to be solved by the finding of an object which shall neither bring shame to the human heart nor fall below it in dignity.

It would seem that man for his own satisfaction need only love himself. But he cannot endure his own companionship. So he goes out from himself and straightway begins the search for something wherewith to fill the great void thus created in his heart. This something that he seeks is beauty. But since he is himself the most beautiful creature God has made, it is in a being resembling himself yet different from himself that he is likely to find the satisfaction of his desire for something to love. This condition is realised in the distinction of sex. And as love is really an attachment founded on thought and reason so it must be the same all the world over.

Such being the essence of love and such its appropriate object, it has a logic all its own, differing from the logic of pure thought. Here are some examples of these reasons of the heart which baffle the reason.

"A fancied pleasure is as good as a real one; it has equal power to fill the mind. In fact, while it lasts we are persuaded of its reality." "The further the mind is developed the more is it able of itself to discern the beauty of many things. But being in love is an effectual hindrance to this; for then only one kind of beauty is seen to the exclusion of all others."

"He who loves is as it were made a new man. The whole being becomes great, uplifted to the high planes of passion."

Such were the discoveries made by Pascal in that distinctively human world whose existence Méré claims to have revealed to him. The discourse on the passions of love, though only an essay of a few pages, yet serves to show how strikingly Pascal had at once overstepped his would-be master. Where Méré had looked no deeper than such outwardly pleasing attributes of humanity as went by the name of wit and honnêteté, Pascal, going right to the depths of human nature, found there the never ceasing play of passion by which a being, formed for steadfast thought but unable to sustain it, endeavours to find satisfaction.

Man's love needs some object great enough to satisfy him. Nature appears to offer him such. But is it quite certain that even in her most perfect product she gives what can suffice to fill the emptiness of the human heart? This question would seem to be suggested in certain passages, but is not really faced by Pascal as yet. He remains, as it were, spellbound, drinking in the wonder of his new discoveries.

It was with the same feeling of esteem for human faculties that he cultivated the sciences at this time. Méré boasts of having disabused him of the notion of the excellence of mathematics. Now mathematics were occupying him more than ever. As a matter of fact they, even more than physics, display the power of thought. Not that we can attach more than a certain value to their results; they are useful and important by reason of the vigour they impart to the intellect. Pascal by no means concedes to Méré that the intuitive mind can dispense with the mathematical. He finds intellectual perfection in the union of these two qualities.

The years 1653 and 1654 witnessed his principal mathematical discoveries.

He wrote at this time the Traité du triangle arithmétique and the Traité des ordres numériques, both published in 1655; besides several smaller works which he dedicated to the Très célèbre Académie Parisienne des Sciences: that is to say, to the circle of scholars who used to gather under the roof of Father Mersenne. Moreover he carried on an important correspondence on the theory of probabilities with Fermat, then living at Toulouse.

It was in connection with divers problems relating to games of chance that Pascal, while reflecting on combinations, invented his arithmetical triangle. By a simple method of reckoning he made rows of figures which he placed in the form of a triangle, and which, by means of such an arrangement, contained the results of complicated formulæ and furnished the key to a great number of problems arising out of permutations and combinations.

In an ingenious essay on Pascal's mathematical work M. Delègue explained in 1869 that this treatise

contains all the elements of a complete and most graceful demonstration of Newton's binomial theory.

Nor is this all; the Traité de la sommation des puissances numériques, which forms a sequel to the treatise on the arithmetical triangle, contained, as M. Delègue again points out, prior to the Arithmetica infinitorum of Wallis, which only appeared in 1655, the whole substance of the differential and integral calculus. Passing beyond the geometrical point of view, Pascal considers magnitudes algebraically. His propositions apply to all progressive magnitudes, whether dimensions or powers.

Pascal also employed his arithmetical triangle for the solving of questions relating to the theory of probabilities or the rule of partis. The general problem was as follows: two players, granted of equal skill, throw up the game before the end. In this case the ruling as to the amount adjudged to each should be so exactly proportioned to what they would be justified in expecting from chance, that it would be a matter of perfect indifference to each of them whether they should severally take their allotted shares or proceed with the fortunes of the game. This just distribution is called le parti. When Pascal and Fermat compared notes on their discoveries Pascal was astonished at the identity of the results obtained from their independent consideration of the matter. He was persuaded that the best way to ensure himself against failure was to check his results by those of Fermat. Thus did these two great men simultaneously create the theory of probabilities.

Pascal is now far removed from that unstable

condition of mind which had followed his conversion to the ideas of Jansenius. He has recovered his mental equilibrium, and his being is once more in harmony with itself. But this does not mean a return to the system of compromise between the world and God, in which his father had trained him. Man as man, such as he unfolds himself to the attentive observer, his thought, his feelings, his life, have now in Pascal's eyes a hitherto unsuspected dignity, richness and beauty. Man becomes for him now a principle and an end in himself. To accomplish such actions as may bring to realisation the perfected form of human nature; thus to rise infinitely above our material surroundings; to create in us by the ennobling of our passions and the deepening of our knowledge an image of that pure thought and absolute knowledge which hopelessly transcend our power: such is his ambition, such the task through which he looks to attain those intense and lofty joys for which he is athirst. The world possesses him. In 1653 he has thoughts of obtaining a government post and marrying.

CHAPTER IV.

FINAL CONVERSION.

AT the very time when Pascal was finding satisfaction in the love of science and the love of the world, in the contemplation of that human nature whose grandeur had been revealed to him alike by his experience in society and by the teachings of philosophy; at the time when his universally admired genius and the intellectual qualities which made him an honoured guest in social circles were promising to bring the fame and happiness he ardently yearned for; about the close of the year 1653, when he was just thirty years of age,-he was visited by an extraordinary spiritual illumination, in which he saw himself and all else in a wholly new light. It was with him as though all things that had hitherto charmed him were now floating about like imperceptible atoms in the infinite void of his heart. He asked himself whether the pursuits he was following and the pleasures in which he was taking delight, were really worthy of him, worthy of the human soul. There came over him a sense of the immense disproportion between what he was and what he was destined to be.

In like manner the books to which he had attached the most weight, which had given him the most exalted idea of human reason and will, now impressed him quite otherwise. He found that with all their knowledge and all their ability, the greatest philosophers did not succeed in furnishing one single genuine proof touching those things which most nearly concern us. And, moreover, while they are by no means agreed among themselves, there is no sufficient reason for believing any one of them rather than another. Here too Pascal had a vivid sense of the disproportion between the cravings of the soul and the satisfactions the world has to offer.

In vain did he endeavour to imbue himself more deeply with the arguments that go to prove the greatness of things human. The more he considered such things, the more they became mean in his eyes. What were all our pleasures, our labours, our knowledge, our fame? Was not the whole round of them hopelessly limited and mixed up with what is unreal and trivial? And for him who has once conceived of a veritable perfection, is there any practical distinction between the more and the less imperfect? Besides, even supposing human nature conditioned at its highest, is not death its inevitable end? And can that be called great which must cease to be? What irony there is in that doctrine of the stoics, which would have us make of ourselves saints and companions of God! As though a changing, uncertain and perishing being had power to draw near to the divine Eternal! How much better was man understood by Montaigne, who represents him as irresolute and changeable, for ever vacillating and wavering, with no fixed centre of belief or conduct, but reduced to regulating his life by custom or else by his own nature, which after all is only custom of a longer growth.

Is man so poor a thing as this, and can he yet be well pleased with himself?

No sooner did these new thoughts arise in Pascal's mind than a corresponding change took place in the feelings of his heart. The pleasures he had been enjoying became to him nothing but occasions of agitation and restlessness of spirit. Peace and contentment no longer possessed his soul. Even in the enjoyment of such earthly pleasures as are accounted the purest he was haunted by a continual qualm. The sweetness of all he cared for was turned into bitterness, its charm into fear and remorse. An unexplained trouble was working within this soul which but now had been expanding like a flower and opening with confidence to every human joy.

Whence came this strange inward light which, by suddenly darkening in Pascal's eyes the most brilliant objects, changed into disgust the fondness with which they had inspired him.

This revelation was not of man. How could the same being at once set himself up and abase himself? It came then from another world than ours; even from that God before whom religion teaches our being is but vanity, misery and corruption. But what warrant is there for a belief in the reality of this spiritual world?

Pascal, in facing this question, is no longer in the same condition of mind as at the time of his first conversion. Then it was his intellect that was most alive, while the soul itself was to a certain extent indifferent. He was then ready to accept the principles of religion on the same terms as those of science: that

is, when either the one or the other commended itself to him as justified by exact reasoning. But now he had become aware of those remoter tendencies and cravings which properly constitute human nature; and he had set his affections on the things which respond directly to those tendencies. Even against his will a comparison was established in his mind between these realities, imperfect no doubt, but palpable, and other objects of which all the sublimity is but a sorry compensation for their vague and uncertain character.

Pascal was entirely occupied during this year 1654 with the rule of partis, on the subject of which he was in correspondence with Fermat; and he now applied to the question of the existence of God the same considerations he was making use of in this branch of mathematics.

Either God exists or he does not exist. Reason is powerless to decide the question. All I can do is to weigh the chances for and against. It is, as it were, a game of pitch and toss. On which side shall I wager?

But why wager at all? What necessity is there to run this strange chance? Can I not put away from me this problem whose solution either way is sure to leave me disturbed and ill content? I cannot. My every action, every movement of my will, implies a certain solution of this unique problem. It is not with the existence of God as with questions of science, which do not affect me personally. It is quite evident that I must act differently according as God exists or not. So I am bound to wager. There is no choice in the matter. We have committed ourselves. Now to examine the conditions of the wager.

In this hazard, as in every other, there are two things to be considered: the degree of probability and the amount of risk. The question of the existence of God being infinitely beyond the scope of reason, the probability is the same for the affirmative as for the negative. This term then is cancelled. There remains the risk. On the one hand there is the finite to be ventured, on the other hand the infinite to be gained. Now, however great may be the finite, it becomes as nothing before the infinite. Strictly speaking then, it becomes a question of venturing the infinitely little in order to gain the infinitely great. Hence we are clearly bound to wager in favour of the existence of God. The reasoning is conclusive. If I am capable of discerning any truth, this is one.

Thus it was that Pascal came to be logically convinced in his own mind of the reality of the spiritual revelation that had visited him. It was of course a purely negative and indirect proof. But why any the less valid for that? Can the mathematician offer a direct proof of the existence of infinity? Yet he unhesitatingly bases his arguments upon it. He knows it is not true that the series of numbers is finite; from the fallacy of this proposition he concludes with certainty the truth of the reverse. In many an instance we are sure without understanding; exactly in the same way I know that God is.

And had reason and will alone sufficed, Pascal would already have been won back to religion; for he saw clearly he ought to believe and his will was naturally inclined towards that which his understanding represented to him as true. It was just now, however, that he felt in all its force the difficulty he had in believing. His reason inclined him to do so, yet still he could not. He felt within himself an invincible resistance. Knowing his malady, he refused its cure; understanding himself to be lost, he stretched out his hands to the abyss.

He had not hitherto been aware of the strength of the tie which bound him to the world: he knew it now. He had thought only to lend himself out, as it were, on the faith of those wits and philosophers who represented man to him as master of himself. Now he perceived that in reality he had given himself wholly and was no longer his own. The obstacle lay then not in his reason as he had supposed but in his heart, in his very self, in his inmost being. Now how was this deepest depth to be reached? How act upon the springs of action? How become that which one is not and cease to be that which one is?

For the bringing about of such a result as this what boots the God of the philosophers to whom his reason might have sufficed to lead him? What is the use of an idea, an abstraction, an algebraical sign, when we are warring against living and intractable forces? Or what could such avail in creating conditions of being, willing and doing? What a world of difference between this mere term of logic and the living God of Abraham, Jacob and Jesus Christ, creator, father, and judge, in whom the saints have rejoiced and in whom the just have power to will and to do. But how am I to approach him? How are the stirrings of divine love to be first induced in a rebellious heart? What sincere and saving faith is

possible in a being who pretends to be sufficient unto himself?

Pascal understood now whence came the spiritual revelation that had brought unrest into his soul. It was the call of the living God. God must needs seek him ere he could come to desire God. Left to himself, this desire would never have entered his mind. which God had begun He alone could accomplish. Would he do so? All the power of man can go no further than to say: O Lord, seek thy servant! Except God himself vouchsafe his aid our best efforts to approach him are in vain. And Pascal, in his anxious searchings of heart, had so strong a sense of being forsaken of God that he dared not hope for conversion. The more he wished for it the further off it seemed. He was conscious of no drawings towards it. Yet, on the other hand, the world and its pleasures had become distasteful to him. So that he was left suspended as it were in empty space, midway between the world and God, spurning the one with his foot, and failing to be upheld by the other. The right path was yet to seek, and he sought it with groanings of spirit.

Long he suffered in secret. He went however, from time to time, to visit his sister Jacqueline, always tenderly beloved. She was distressed to see the brother who had been the means of withdrawing her from the world becoming more and more absorbed in it himself; and she would speak to him with a gentle insistence of the necessity of a change in his manner of life. Now Pascal, on going to see her towards the end of September, 1654, made up his mind to take her

into his confidence. He acknowledged to her that in the midst of his manifold occupations, and surrounded by everything likely to foster his love of the world, he felt such an aversion for all those things on which his heart had been set, and suffered such torments of conscience that he earnestly longed to be rid of them all. And so strongly was he impelled to this that he would certainly long since have put his design into execution had God been gracious to him as in times past, and drawn near to him as heretofore. But God was abandoning him to his own weakness.

Jacqueline received this confession with equal surprise and joy, and began to cherish hopes she did not dare to define. She spoke to Mme. Périer of what had occurred, and also mentioned it to certain members of Port Royal who shared her solicitude over the prodigal. Port Royal had weighty reasons of its own for taking an interest in this affair. The community had embraced the ideas of Jansenius, and these were being subjected to violent attack. In January, 1653, the Jesuits had published the Almanach de la déroute et de la confusion des Jansénistes (Tract for the Rout and Confusion of the Jansenists); and on May 31, of the same year, Pope Innocent X. had condemned the five propositions taken from Jansenius. What a testimony would be borne to the truth should a philosopher of such wide repute become converted! Encouraged and counselled by the devout christians at Port Royal, Jacqueline did all that in her lay to second her brother in his efforts. He visited her more and more frequently; and ere long it dawned upon her that the need for any kind of persuasion was past and she had

only to follow his lead. The work of grace was going on within him.

By self-examination Pascal had taken account both of his own inward condition and of the course he must follow in order to attain his end.

His reason inclined him to believe; nevertheless he could not. The obstacle lay in his heart, which refused to obey his reason. It was this heart then that must needs be changed. Where is the seat of true faith if not in the heart? The ideas of the understanding are not faith, having of themselves neither force nor enlightenment. The understanding applies itself indifferently to any object that presents itself or happens to take our fancy; while faith, on the contrary, is the profound and effectual impression made by spiritual enlightenment upon the very springs of intellect and will.

Now of what does this rebellious heart properly consist, this nature of mine that separates me from God? My nature is at bottom nothing but habit. The pyrrhonists, who do not hesitate to look things openly in the face, recognise this fact. But this being so, my nature is capable of modification. The power of habit, the cause which gave it birth, can also change its manner of being. And thus the means by which to make faith work its way through the reason to the heart is to act as though you believed; to use holy water, to hear mass, to repeat prayers; in a word force yourself to use the means of grace mechanically. It is in the very nature of such acts to provoke in my heart the faith of which they are the outward sign. In proportion as my passions diminish will the vain sophisms

they engender in my mind be dissipated, and my spiritual vision grow clearer.—Yet surely this kind of faith is nothing but foolishness?—What then? Is our wisdom after all of such surpassing value? And is aught lost by rejecting the knowledge falsely so called of the philosophers? The childlike heart can see deeper than they. We do not forego the true wisdom in despising the wisdom of the world. On the contrary our intellect takes a higher stand and shows itself stronger and more balanced when it scorns to take its principles from human passions and asks them from God instead.

But may not all the efforts I can make prove to be vain? Have I not been taught, nay, have I not found out by my own experience that I can do nothing for my own salvation if God do not bring it to pass? Of a surety it is so; nor can I think to force by any doings of my own, finite and fallen creature that I am, the intervention of the infinite and most holy God. Yet it ill becomes me to reason as to the purposes of God, whose ways are past my finding out. One thing only I know; that is, that it rests with me to take the first step and that this first step consists in leaving my pleasures and betaking myself to prayer.

Such was the course which Pascal marked out for himself and followed with growing zeal. After this manner he waged war against the impulses of his rebellious nature, particularly his self-confidence, his desire to live in the esteem and remembrance of his fellows; in short, his pride, that form of lust which is at the same time the most insidious and the most dangerous of all, inasmuch as it is fed by the victories we gain over all the rest and lives afresh in our moment of triumph over its subjugation. A struggle this abounding in suffering, but a suffering which was active and brought forth fruit. It was no longer the anguish of one who felt himself forsaken and helpless, but the effect of the resistance of his own unregenerate nature. Now the fact of this resistance implied that his nature was being attacked by grace; and if nature were worsted then was grace the stronger. Henceforward Pascal measured his progress by his sufferings. And from this time forth they became so mingled with consolations as to be almost turned into joys.

Thus Pascal's hope had proved no vain one. For the effort he had been making to create in himself a new habit by the doing of certain things and to subdue to some extent by outward compulsion his inwardly disobedient heart, turned out to be a reflection of the work which grace was carrying on in his spiritual being. He had thought to take the first step himself, whereas it was really God who was seeking him, and drawing him more and more perceptibly to himself.

And he discovered that the worst result of sin is to blind us to our own condition. Unlike the prisoner who knows himself to be in prison, we only become aware of our bonds at the moment when they are broken. The fact of our pardon reveals to us our sins. Spiritual enlightenment and spiritual joy throw into relief the emptiness of earthly knowledge and pleasures. The more we lack, the less are we conscious of what is lacking. We hug our servitude and do all in our power to continue it. Yet no sooner are we set free than we are at a loss to understand our former

indifference. Far be it from man then to stop short complacently at any point of advance which it may perchance have been vouchsafed him to attain. How mean a stage of progress would this seem in his own eyes could he but view it from that supreme goal to which he is meant to aspire.

Hitherto Pascal had made use first of reason and then of habit to enable him to attain faith; and he had certainly felt that a change was taking place within him; for, not content with despising the world, he was beginning to care for spiritual things. He did not, however, actually make up his mind to forsake the world. For this he alleged many a pretext; among others the state of his health, which was in truth very poor, and which he said would preclude the austerities of a life of religious retirement. Again, while fully conscious of his need of a spiritual director, when it came to the point of choosing one he raised difficulties. A lurking spirit of independence protested within him. He was not yet altogether subdued unto God; and it seemed as though some spiritual upheaval of another nature than those he had hitherto experienced would be needed for the full accomplishment of his conversion.

While he was still in this state of indecision it chanced that during a visit he was paying to his sister at Port-Royal-in-the-Fields the bell rang for the sermon. It was probably, as M. Delègue has assumed, the day of the Presentation of Our Lady, November 21. Jacqueline left her brother, and he went into the church to hear the sermon. The preacher was already in the pulpit, and it was M. Singlin. The sermon, as was customary on the day of Presentation, which celebrates

the consecration of the Virgin to our Lord, turned upon the beginnings of the christian life and upon the importance of not entering lightly, after the manner of worldlings, from mere custom or fashion, or from motives of worldly prudence, into business or marriage relations. The preacher urged the necessity of laying the matter before God when any such step was in prospect, and of making sure that it would offer no hindrance to the work of personal salvation. As he listened to these utterances Pascal was struck with their applicability to his own case. It seemed to him that by a special leading of providence all this had been said expressly for him; and he was all the more strongly moved by reason of the much fervour and weight of the preacher's style.

Henceforth the question was clearly defined. Could he keep at all in touch with the world and at the same time carry out the idea of the christian life? Would any partial renunciation suffice? Was it not literally all his powers, all his thoughts, his whole being, that God demanded from him? Was such a sacrifice possible? To give oneself up utterly and deliberately? Was not such a thing altogether inconceivable and contradictory? And he cried afresh: "O Lord, seek thy servant!" So great was the fervour of his longing that he came perforce to believe that God was nigh; such striving of soul could not come but from Himself.

Now two days after he had listened to M. Singlin's sermon, on Monday, November 23, 1654, there came over him a kind of ecstasy in which he saw and felt the divine presence. From about half-past ten in the evening till about half-past twelve he was as though

illuminated by a spiritual flame. What this revelation communicated to him was first of all a sure knowledge. He saw with new clearness of vision that the God who enlightens and saves, the God who seeks after the human soul, is not the symbol of the philosophers and the learned; he is the living God, real, communicable, the God of Abraham, of Isaac, and of Jacob. This God is too great and too holy for us to be able to unite ourselves to him. Are we then condemned to long for him through all eternity? The key of our destiny lies within reach, yet we know not how to take hold of it. All our helplessness arises from one thing: we do not accept the succour that is offered us. The one being through whom we can draw near to God, yea, though separated from him by a whole infinity, is Jesus Christ. He is the way, and the only way. This is the supreme revelation, the one which gives meaning and effect to all others. O God of Jesus Christ, my Lord and my God!

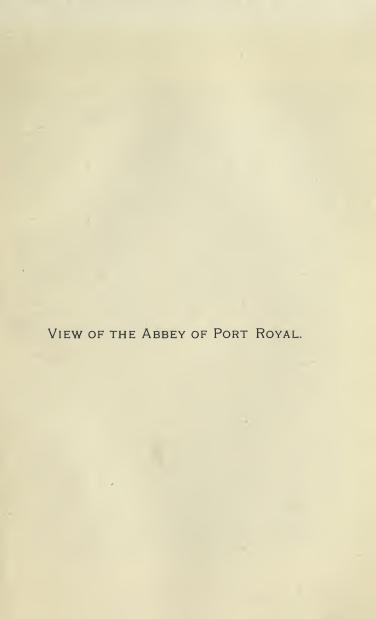
In face of this truth, away with doubt! Ask no more proof. Assurance, full assurance! The assurance that comes from feeling and affection; the assurance that is immediate and against which there is no appeal; which comes from vision and not from argument. Joy; peace. The soul at length in possession of that object which answers to all her needs and which she has been feeling after through one after another of her earthly attachments! O the greatness of the human soul! It is no longer a monster. God entering into it once more restores it to harmony. Joy, joy, joy, joy. O weep for joy!

Now for the first time, O my Lord, by thee en-

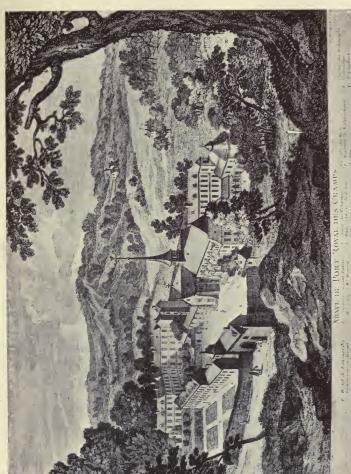
lightened, do I measure the gulf which separated me from thee. I severed myself from Jesus Christ, I forsook him, denied him, crucified him. What assurance can I have that God will from this time forth abide with me? O my God, wilt thou go far from me? Let me not be cast away from thy presence for ever!

So in alternations of spiritual transport and terror Pascal felt his resistance grow feebler and feebler, while love to God crushed out and replaced in his heart the love of the creature, until the work of regeneration was accomplished in the very depths of his being. Every access of suffering was the signal of a new victory; every stage in the work of restoring grace in dealing with some unsuspected evil provoked fresh suffering. Joy however prevailed more and more and pain itself grew joyous, until at length, the last resistance being overcome, the soul having yielded itself utterly and finally, without a thought of looking back, Pascal, in one of those indivisible moments that belong no more to time but to eternity, saw in a flash, as it were, in a vital unity which his own mind could never have conceived of, his own nothingness, the presence within him of a God of love and mercy, and that infinite flood of passion which alone is capable of filling the emptiness of the human soul and of which erewhile he had dreamed. O sweet and utter renunciation! A whole eternity of bliss for a day of earthly discipline!

He understood now what was the third means, higher than either reason or habit, by which faith could be attained. This highest means, of which he had been confusedly feeling the need, was inspiration. Reason and habit, bringing the natural powers into









play, are apt to lead man to credit himself with the faith which in reality he receives as a gift. Whereas man only believes in the highest sense when he attributes his faith entirely to that source from which alone it can come as the free gift of the divine mercy and goodness. Inspiration is that action proper to God himself which man can never again confound with his own. Not that he is to wait for it in a passive and careless attitude as for the favour of a capricious master. But all he has to do is by means of self-humiliation to lay himself open to the inspirations that alone are able to work out the finished and saving result.

Having thus taken the three upward steps which mark the ascent to God, Pascal by no means imagined that he had henceforth nothing to do but to enjoy Him, and, exempted from further labour, to taste of his reward. The operations of grace are carried on only in the man who himself strives and puts forth all his strength. It is these very efforts and not a slothful quiescence that are alike the fruit of divine grace and its manifestation. Thus he gave a practical conclusion to the mystery that had just been accomplished within him: entire submission to Jesus Christ and to my spiritual director. Non obliviscar sermones tuos. Amen.

For the sake of preserving a memorial of the thoughts with which God had inspired him during this night of spiritual crisis, he hastened to commit them to paper. The hurried and illegible writing sufficiently attests the inability of his hand to keep pace with the agitation of his heart. Besides, brief indications were

all he needed; for now some of the words he had been accustomed to repeat with his lips only, taking hold of nothing but their mundane sense, came to have for him a deep, experimental signification. Thus the name Jesus Christ merely written several times without note or comment represented to him the plan of salvation Jesus Christ is the veritable God of mankind. Some time afterwards Pascal copied out these notes on parchment, writing them with great care and in a fair hand. He always carried them about with him as a perpetual reminder, tacking them afresh into his vest whenever he changed it. He knew by experience that conversion, however sincere, is not necessarily final, and that it is far more difficult to persevere than to take the first step. It is in perseverance that the higher life is clearly made manifest; for even unaided man is not incapable of rising above himself in spasmodic efforts. He was quite resolved then to guard with a jealous care the grace God had vouchsafed to him during those all too short moments; and in order to ensure himself against his own negligence he desired to have always in mind and in sight the witness of the divine mercy.

Furthermore, he believed that the work of entire reformation from this time imposed upon him had only begun. The source was cleansed, but the unregenerate man remained, hardened and impenetrable as ever. What had to be done now was to send the waters of regeneration flowing through every part of his being, and to see to it that the idea of the christian life, already understood and embraced, was abundantly realised in his acts, desires and manner of life. To

this Pascal applied himself without delay. He now begged for that spiritual direction which his lurking pride had hitherto made him regard as unnecessary. And for this purpose he asked for the one man to whom providence was so clearly pointing him, M. Singlin. The latter, being detained in the country by ill-health, at first placed Pascal under the guidance of his sister. In a short time, however, he released her from this responsible post, and himself undertook the direction of the penitent. Judging that Pascal's life in Paris was too distracting for him, and especially so the intimacy of his bosom friend, the Duc de Roannez, he urged him to withdraw to some secluded spot. Pascal set out on January 7, 1655, with the Duc de Luynes, with the intention of staying in one of the houses belonging to the latter. Afterwards, not finding so much privacy there as he desired, he asked for a cell at Port-Royal-in-the-Fields, where, in January, 1655, at the age of thirty-two, he took his place among the recluses.

CHAPTER V.

PASCAL AT PORT ROYAL.

THE abbey of Port Royal, founded for women and situated near Chevreuse, a mile or two distant from Versailles, was one of the oldest houses belonging to the Cistercian Order. It had been founded at the beginning of the thirteenth century on the domain of Porrois, whence the name Port-Réal, in a bare and swampy hollow. It was under the rule of Saint Benedict. As with other religious houses, so with this monastery; laxity crept in and by degrees the spirit of the age did away with all regularity of discipline. At the beginning of the seventeenth century, Port Royal numbered twelve nuns wearing masks and gloves; and the abbess was a little girl of eleven. child was called Angélique Arnauld. In 1608, when sixteen years old, she heard a sermon from a free-thinking monk who chanced to pass that way, and who preached on the blessedness of conventual life and the sanctity of the rule of Saint Benedict. This monk was the means under God of touching her heart; and she resolved to reform her abbey. She imposed upon herself, and induced her spiritual daughters to adopt the practice of community of goods, fasting, abstinence from meat, silence, night vigil, mortification, in fact all the austerities of the Benedictine rule. Of all her reforms she laid the greatest stress upon the absolute closing of the monastery against the world. She surrounded her abbey with substantial walls which were not to be passed even by the nearest relatives. Was renunciation to this extent a possibility? Was it in accordance with the will of God? On September 23, 1609, M. and Mme. Arnauld came knocking at the gate on a visit to their daughter. Mother Angélique opened the wicket, and begged her father to go into the little room for receiving visitors, where from behind the grating she would have the honour of explaining to him her resolution. Presently, when through that grating she looked upon her father's changed features and heard his tender reproaches, she fell down in a swoon, though her will remained staunch as ever. She had put away from her once for all her father's endearments. She had consummated that absolute separation from the world which was to be the distinguishing mark of Port Royal.

Under the firm hand of Mother Angélique and in contact with her sovereign faith, the monastery revived and flourished rapidly. These women, seeking nothing but Jesus Christ and him crucified, spread abroad wherever they went the treasures of christian charity. Their very presence was a benediction. No religious house was in better odour. When Saint Francis de Sales, the gentle and contemplative Bishop of Geneva, went to visit Mother Angélique, he found everything as he would have it in this veritable Port Royal, a trifle austere it is true, but so earnest in its piety, which he spoke of from this time as his chères délices (heart's delight). And at the request of the abbess he gave her right willingly those marvellous

spiritual counsels of his in which strength is made so gentle and holiness so attractive.

In 1626, the community being short of space removed to Paris. Six years later it had for its director Jean du Vergier de Hauranne, Abbot of Saint Cyran, to whom Mother Angélique gave her fullest confidence, finding afresh in him the virtues of the saintly Bishop of Geneva. The Abbot of Saint Cyran was associated with Jansenius the learned professor of the University of Louvain, afterwards bishop of Ypres, who was working in opposition to the Jesuits for the restoration of the pure Augustinian doctrine of grace. Saint Cyran shared his friend's ideas, and had undertaken to labour for the reinstatement of christianity on the practical side while Jansenius was restoring it on the doctrinal side. His principle was that the sinner cannot be justified except he truly love God. His aim was to describe and induce the practice of the manner of life that results from this principle.

As director of Port Royal, he had dreams of a wider future for the community than that to which Mother Angélique would have confined it. The church was in an unhealthy condition. To change of doctrine had succeeded corruption of morals; and the one thing needed for its cure was some centre of doctrine and holy living that should make its influence felt around. Port Royal was God's chosen instrument for the regeneration of his church. Saint Cyran applied himself to make of it a living model of true christian morality as opposed to the morality of convenience substituted by the Jesuits. They taught that every means is justifiable which has for its end the glory of

God; while Saint Cyran maintained that only through God can man draw near to God. Only when God is the beginning can he truly be the end. Of the seven years of his directorship Saint Cyran spent four in confinement at Vincennes on account of his hostility to the Jesuits. This did but serve to increase his prestige; and his instructions and example left an indelible impression on Port Royal.

To Saint Cyran succeeded in 1643 M. Singlin, who filled his place to the best of his ability. Scrupulous as a director of the conscience, humble in the cure of souls, he demanded above all else an ear attentive to the call of God and an exclusive following of His guidance. Before long M. Singlin handed over to M. de Saci a directorship he himself lacked courage to fulfil. M. de Saci, a spiritually-minded man, not lacking in discretion and of a calm and inward piety, was distinguished by the pure and reverent awe with which he regarded the infinite greatness of God, and by his lively consciousness that the impress of eternity is upon the thoughts that come to us from Him.

Under the directorship of Saint Cyran, Port Royal had ceased to be simply a monastery for women. At the time when the nuns were living in Paris, he established in the original monastery, which now became Port-Royal-in-the-Fields, a certain number of distinguished men into whose hearts God had put the desire to withdraw to a solitary place for the purpose of doing penance and meditating on the way of salvation. There were Le Maître, the advocate; Le Maître de Saci his brother, the future director of Port Royal; Lancelot; then Fontaine; Arnauld

d'Andilly, and many others. Several of the ecclesiastics and lay members of Port Royal were scholars and moralists of great distinction. Such was Antoine Arnauld, "the great Arnauld," consummate theologian and sound philosopher, whose approbation was to be craved by a Leibnitz; such was the refined and amiable Nicole, the future author of the Essais de Morale.

These religious ascetics were, as regards things human, the apostles of reason. They appreciated the philosophy of Descartes, being in sympathy with its reserve in matters of religion and its purely rational method in matters of science. So also in style they aimed above all at clearness, simplicity, the subordination of the form to the subject. They had more gravity and force than picturesqueness and variety.

The same spirit directed the instruction given by Port Royal in its Petites Écoles (primary schools) which rivalled the Jesuit houses of education. Here the chief aim was to guard the innocence and purity of the children, and instil into them a spiritual and steadfast piety. At the same time they moulded the mind and the reason, accepting neither routine nor even custom as in themselves authoritative, but looking into the reason of things and tracing them to their source. Thus they put the pupils into a position of being able to think and judge wisely for themselves.

Such was Port Royal when Pascal retired thither; a sort of lay convent adjacent to an actual monastery; a place of retreat where above all else an attempt was made to live up to the highest principles of christian morality.

Pascal found there the solitude and the spiritual

atmosphere for which he was yearning. Was it the charm of aloofness that drew him to this tranquil vale, shut in, as it were, a little spot of greenness and of silence only a mile or so away from the capital? Nature in those days appealed but little to thinking men. They were too keenly interested in all the discoveries they had been led to by the study of their own selves, to have much attention to spare for the life of nature. Or, on the other hand, did Pascal see in the waste solitude of Port Royal that terrible valley which struck fear into Mme. de Sévigné and in which she said one might well be moved to flee from the wrath to come? Not so neither. The influences that were working upon him came from within. All he asked of his surroundings was that they should leave undisturbed his seasons of communion with God.

His first care in taking up his abode at Port Royal was to give up everything which savoured of outward show. He made profession of poverty and humility, and followed the routine of the house in all its rigour, getting up at five in the morning to attend prayers and fasting during his night vigil in defiance of all the doctors' orders. This regime proved very salutary. His health improved, and an intense joy pervaded his soul. Behold him housed and treated as a prince according to the judgment of Saint Bernard. The wooden spoon and earthen vessel he was allowed to use were to him as the gold and precious stones of christianity. Thus did he prove by experience that health depends more upon Jesus Christ than upon Hippocrates, and that self-renunciation is even in this present life a source of happiness.

Port Royal had hailed his advent with especial gratitude to the Lord. What a testimony of divine favour to have inspired with humility so profound a thinker, so famous a philosopher; and likewise what a proof of God's goodwill to their house! As for Pascal, he strove to acquire the virtues there practised, but did not consider himself as really belonging to it. He often absented himself from Port Royal to sojourn in Paris, either under his own roof or at the Roi-David inn, under the assumed name of M. de Mons. For though he made friends individually with the members of Port Royal, yet he did not regard himself as one of the community, but considered that he still retained his independence. On the other hand, he threw himself with zeal into their occupations, studying the scriptures and the fathers with them, and interesting himself in the Petites Écoles, for which he propounded a new method of teaching. attended the meetings in connection with the translation of the New Testament, held at the Château of the Duc de Luynes at Vaumurier.

His fervent piety, together with his intercourse with the Port Royalists, gave a new impulse to his genius. He began by introspection and self-questioning as to the manner of the work of grace within him. In a pamphlet: Sur la conversion du pêcheur (On the conversion of the sinner), he traces in some sort the theory of the return to God of a soul absorbed by the world, pointing out how the man who has once clearly conceived of God as his end must necessarily come to wish that God may be also his way and the spring of all his actions.

The Port Royalists, however, were anxious to learn the attitude of this great mind towards philosophy, to which they knew him to be specially addicted. devout and timid M. de Saci, to whom had been entrusted by M. Singlin the task of teaching Pascal to despise the sciences, and who always liked to know from his penitents exactly where they stood, questioned him one day on this subject. The conversation, doubtless premeditated, was more or less of a formal discourse. It has been preserved for us by Fontaine, M. de Saci's secretary; though to speak strictly what we possess under the title of Entretien de Pascal avec M. de Saci is not the actual text of Fontaine in its original form. None the less does it give us the impression of dealing with Pascal's thought, nay, even in great part with his very words.

It was not without some misgivings that M. de Saci undertook the interview. He held that philosophers were thorough usurpers arrogating to themselves an authority which belonged to God alone. And he refused to admit the need of any other enlightenment to him who already possessed the scriptures and Saint Augustine. Pascal, though extremely deferential, made no attempt to gratify his interlocutor, but answered out of the candour of his soul and the clearness of his mind, looking the truth in the face even though it seemed disconcerting. He had confidence in the power of his own genius, when divinely enlightened, to reconcile apparently contradictory propositions.

He told M. de Saci that the two authors he had been mostly in the habit of reading were Epictetus and Montaigne; and he paid a high tribute of praise to these two thinkers. He found in them, on tracing back their thoughts to the source from which they sprang, the representatives par excellence of the two essential forms of philosophy.

Epictetus and Montaigne are, he said, both of them right in one direction and wrong in another. Epictetus recognised the duty of man. He saw that man ought to look upon God as his chief object and submit to him right willingly in all things. But he fell into the error of thinking that man was of his own self capable of fulfilling this duty. As for Montaigne, having set himself to find out what rule of life reason would dictate apart from the light of faith, he found that reason left thus to herself could end in nothing but pyrrhonism. But his error lay in being satisfied that man should keep to what he can do and let be what he ought to do; he was wrong in that he approved the adoption of custom and convenience as the sole rule of life, and would have us fall asleep on the pillow of sloth. Thus the one recognised the duty of man but erred in inferring from that duty his ability to perform it; whereas the other recognised man's impotence, but erred in making that the measure of his duty.

How is the truth to be disentangled from these several doctrines? Will it suffice if we take the good points of Epictetus and Montaigne and let each of them complement the other? That cannot be done. Each of these philosophies, from the point of view of human nature, must be accepted wholly or not at all. Man is a unity, and this unity would be broken if we

made to co-exist in him the duty of the stoic and the impotence of the pyrrhonist. Neither Epictetus nor Montaigne could have concluded otherwise than they have done. And thus the two doctrines produce a contradiction at the same time inevitable, since each of them is necessary, and insoluble since man of whom they treat is essentially one and indivisible. Here we have reason herself grappling with a problem she cannot escape from. It is a case which admits neither of affirmation nor denial; scepticism is no less excluded than dogmatism.

The solution which reason is not competent to find is supplied to us by faith. Both the one and the other of these schools have failed to recognise that man's present condition differs from the state into which he was created by God. The stoic, remarking some traces of his pristine greatness, makes out that his nature is whole and able of itself to approach God. The pyrrhonist, seeing nothing but its present corruption, treats human nature as of necessity morally disabled. Now misery appertains to human nature, and greatness appertains to divine grace, whose part it is to restore nature; and the co-existence of misery and greatness ceases to be contradictory the moment these two qualities are granted to reside in two several subjects. And further, this co-existence becomes possible by reason of the ineffable union of weakness and power in the unique person of the God-man. It is the image and the result of the nature, at the same time one and dual, of Jesus Christ.

As Pascal went on unfolding his ideas, M. de Saci knew not whether to be more surprised or shocked. Of course such studies became harmless provided one knew how to twist things after this fashion. Yet to how many minds it would be an impossibility to sort out the pearls from this mass of rubbish; how many there were who would know no better than to cast in their lot with the philosophers and become with them the prey of demons and the food of worms!

With no less firmness than discretion Pascal maintained the usefulness of such studies. We must have regard to the state of mind not only of the christian but also of the unbeliever. The obstacle to conversion in the case of the philosopher is either pride, the fruit of stoicism, or sloth, the outcome of pyrrhonism. Now, although it is quite true that the study of these two philosophies, if taken separately, does favour either the one or the other condition of mind, yet when taken in conjunction they oppose each other. So that if they cannot create virtue they can at least disturb vice; and, without themselves exercising any saving power, may be the instrument under grace of awakening in the soul that uneasiness which is the initial step in the way of salvation.

Thus did Pascal defend himself. He recalled the inward conflict he had passed through when first touched by divine grace. And from this time his dream was to lead back to God those who were in the bondage he himself had known. From this time he conceived the method to be followed: to excite in man, by leading him to self-reflection, a contempt for his own wisdom falsely so called and a craving after God. His ideas and his plan of action grew more

clearly defined in his own mind while he was explaining them to M. de Saci.

His natural inclination led him to spread his convictions. Just as his family had before been made sharers in his first conversion, so now he was the means of leading to God his bosom friend the Duc de Roannez and M. Domat, afterwards king's advocate at the Clermont présidial. The remembrance of the Chevalier de Méré, of Miton, and others, friends of his years of pleasure seeking, inspired him with a desire to prepare a great work in which he would not confine himself to the confutation of atheists, but would labour with all his might at the task of their conversion.

With this idea he resumed from a fresh point of view that examination of the scientific method to which he had already given his attention, and for which also an opportunity was now afforded him by the efforts of Port Royal with respect to the Petites Écoles. It was probably in view of a preface to an Essai d'éléments de Géométrie that Pascal wrote the two fragments which have come down to us under the common title of De l'esprit géométrique. The second of these fragments, known under the title of De l'art de persuader, is perhaps merely a recast of the first. These two essays are an attempt to set forth a definite scheme of human life, and by reflection upon natural law to prepare the mind for the study of spiritual law.

Mathematics are the means par excellence of mental training, and are far more valuable for the clearness of mind they develop in ourselves than for the actual knowledge they contain. They teach us what it is to demonstrate. Let us see what their demonstrations consist in.

What they profess to do is to produce certainty in us. Certainty is not precisely the same thing as conviction. The only way to convince would be to define and prove everything. But that is impossible. This is why geometry substitutes for the art of convincing a method which at least gives certainty: the use of natural revelation and of indirect demonstration. Natural revelation is that clearness which appertains to certain things, by virtue of which they are at once understood of all men; it is nature herself sustaining the order of our thoughts in default of reasoning. Indirect demonstration consists in examining not that which is to be demonstrated but the contrary proposition, and in finding out if this is manifestly false. From this falsity the truth of the contradictory proposition will follow. This mode of demonstration is, so far as principles are concerned, adapted to man's nature. For, ever since the fall, his mind has been warped and of itself knows nothing but error. Infinity, for example, is incomprehensible to him; yet it really exists. Reason can demonstrate this by proving that there are no two numbers of which the square of one is double the square of the other; while one geometrical square can be the double of another; from this it follows that space is not composed of a finite number of indivisibles but is divisible to infinity. Legitimate, nay, necessary as it is in the most perfect of the sciences, why should recourse to natural revelation or

to indirect demonstration be elsewhere taxed at the outset with want of certainty?

The method of the geometrician, when analysed in detail, is found to comprise certain rules relating either to the propositions themselves or the order in which they should be arranged. Rules of the first kind prescribe: Firstly, the definition of all the terms to be used, save such as are too clear to need or allow of a definition; secondly, the announcing of self-evident axioms; thirdly, the mental substitution in every demonstration of the definition in place of that which is defined. As to the rules of the second kind, the unfinished fragment does nothing more than mention them. Pascal however considered the question of order as of paramount importance in all research. His ideas of order in mathematical demonstration were probably almost identical with those of the author of the Discours de la Méthode, who had given his utmost attention to this problem.

This rigorous method ought to suffice for our persuasion in all that concerns the physical world; for everything in it consists of motion, number and space. But as a matter of fact it does not suffice, save in such matters as have nothing to do with our tastes; for no sooner are the desires of the heart brought into play than we shut our eyes even to evidence, for the sake of adopting what gives us pleasure. Thus there are two avenues by which opinions are received into the mind: the understanding and the will; and the only sure way of gaining the adherence of men is to study to please them no less than to convince them.

Can there be such a thing as an art of pleasing? Assuredly so. There are rules for pleasing just as there are rules for demonstrating, and they are no less certain. He who should know and practise them to perfection would as surely succeed in securing the favour of kings and all manner of personages, as in demonstrating the elements of geometry. But these are very subtle, because the sources of rules pleasure are not fixed and unchanging. Pascal did not feel himself capable of dealing with them; moreover, for all its power, he looked down upon this art, seeing in it a consequence of our corruption which makes us that we will have none of the truth except it flatter us. In the domain of natural things, the order is that consent enters through the mind into the heart and not from the heart into the mind.

But does it follow from this that the art of pleasing can never be legitimately employed?

Now if men are accustomed, in their ordinary life, to subordinate their understanding to their will, their conduct is blameworthy, but not altogether without warrant. For as regards things divine as distinct from things natural, God alone can put them into the soul and in whatever manner seems good to him. Now he has willed that these things shall enter into the mind through the heart, and not into the heart through the mind, that by this means the vain glory of our reason may be brought low, and the corruption of our heart be healed. Man has erred then in judging of things natural after the rule which applies only to things divine. This being so, the art of pleasing, though reprehensible in ordinary life, becomes the

necessary method for him who labours for the conversion of the unbeliever. There are certain sure ways of getting at the human heart. There is an order in which thoughts can be made to work themselves into it and penetrate it. This method it is which must above all be known and practised by any who would effectually teach religious truth. And so Pascal recognised at the same time the singular difficulty of his self-appointed task, and the precise conditions of its fulfilment.

Nor was this all; his outlook on the sciences enabled him to see the general principles by which his reflections should be guided. Geometry obliges us to recognise the existence of a two-fold infinity: the infinitely great and the infinitely little. Such is the result of the analysis of motion, number and space. Now this notion of a middle point between two infinities helps us to find out our own place in the universe visible and invisible. Do we seek to know our place in the material world, we see ourselves as intermediate between an infinitely little and an infinitely great, a whole as compared with a mere nothing, a mere nothing as compared with a whole. Do we seek now to know man's place among all things visible and invisible, his place in the material world becomes a symbol which will help us to grasp the idea. His mind, his thought, that which constitutes his real self, is it not, as it were, suspended between the natural world lying infinitely beneath him, and the world of grace or divine love which is infinitely above him. Thus it is that in meditating on questions of geometry, man learns to estimate himself at his true value, and

to indulge in reflections which are worth more than the whole of geometry itself.

These reflections it was that first formed the design in Pascal's mind of the great work he was to prepare later for the confutation of atheists. this time his principle was fixed. It was no longer the separation pure and simple between reason and faith that his father had taught him. Nor was it the abolishing of reason in the interests of faith. Science and religion have their distinct domains, and at the same time there is a certain connection between them. Science gives to the mind a clearness, a justness, a power of reasoning which are of use in every direction. The study of science aids man to self-knowledge and widens the horizon of his thoughts, leading him to look up above the world and above himself. The natural man, with his reason and his knowledge, is not the measure of the truth, and cannot embrace the order of divine things; but the consideration of his own individual nature disposes him to seek after spiritual truths. Man is a problem whose solution is to be found in God alone.

If Port Royal cannot be said to have been Jansenist in precisely that dogmatic sense which attaches to the word, neither are the Port Royal principles, pure and simple, to be found in the ideas of its new guest. Not only did Pascal express these ideas in the early days of his retirement to the abbey, but they bear the mark of his individual thought. Neither M. Singlin and M. de Saci, who set reason at naught, and took their stand upon practice, nor Arnauld, who taught the radical separation of theology and philosophy,

after the cartesian manner, and saw nothing but pyrrhonism in the attempt to set up faith as our universal principle of judgment, are to be recognised here. Pascal does not depend directly upon faith, as did Jansenius; he does not separate the christian life from the exercise of natural reason, as did Port Royal. He had surveyed the world and philosophy, and had brought thence an impression of the greatness of human nature. Even in religion he found some basis for this feeling, mingled though it might be with error. So with Pascal, philosophy, science, reason and nature were to hold their place and play their part in establishing the verities of faith.

CHAPTER VI.

THE PROVINCIAL LETTERS.

WHATEVER may have been Pascal's projects at the beginning of 1655, he had not at that time the leisure to carry them out. After having retired to Port Royal for the purpose of living there in silence and meditation, he suddenly found himself involved in one of the most momentous and vehement conflicts that have ever agitated the minds of men.

The occasion was an event of no great importance in itself. On January 31, 1655, M. Picoté, a priest in the parish of St. Sulpice, suspended from the communion his penitent, M. de Liancourt, on the ground that he had under his roof a heretic and friend of Port Royal, the Abbot de Bourzeis, a member of the French Academy; and that he was having his granddaughter brought up in the schools belonging to the abbey. Arnauld took occasion from this event to publish a pamphlet entitled: Lettre à une personne de condition (Letter to a person of quality) which was violently attacked by the Jesuits, notably by Père Annat. Arnauld replied on July 10, 1655, with a Seconde lettre à un duc et pair de France (Second letter to a duke and peer of France), thus designating the Duc de Luynes. In vain did Arnauld in this letter subscribe to the Papal bull of May 31, 1653, which condemned the five propositions attributed to Jansenius. The Jesuits raised two points in it: Firstly, Arnauld here justified the book of Jansenius and called in

question the fact of its containing the propositions; secondly, he reproduced on his own account the first proposition (according to which needful grace is not always granted to just men) by saying that the gospels and the fathers show us in the person of Saint Peter a just man to whom grace was wanting. This second letter was tendered to the Faculty of theology, and Arnauld's enemies, confident of the support of the government, and determined to make use of this opportunity for silencing the invincible doctor, supplemented the Faculty with forty or so mendicant monks, all of them Molinists, although the rules at that time only allowed eight supernumerary judges. Thanks to this manœuvre, a Molinist was made president, and in his turn nominated Molinist commissioners.

On December 1, 1655, these latter presented their report, in which they incriminated the two points signalised, calling the first the question of fact, and the second the question of right. Laborious were the deliberations. In vain did Arnauld dispatch pamphlet after pamphlet, protesting his adhesion to the doctrine of Saint Thomas touching the grace which is sufficient as distinguished from that which is effectual, condemning the five propositions in whatsoever book they should be found, and asking pardon from the pope and the bishops for having written his letter. He was not even allowed to come and plead his arguments in person. The government, for its part, ordered the chancellor, Séguier, to be present at the deliberations in order to bear upon the decision of the judges. On January 14, 1656, Arnauld was condemned on the question of fact by a hundred and twenty-four votes against seventy-one, fifteen remaining neutral. Never, says Racine, was there a less judicial judgment delivered.

There remained the question of right. The Thomists were inclined to discharge Arnauld as not guilty, provided that he recognised in the soul of the just man the presence of sufficient as distinct from effectual grace. But the Molinists persisted in trying to stifle the debates. They hit upon the device of setting a waterclock on the table, so as to limit to half an hour the time allotted to each doctor for the unfolding of his views. Domine mi, said the president, impono tibi silentium. And everyone cried: Concludatur!

Meanwhile, despairing of the acquittal of Arnauld at the Sorbonne, Port Royal began to think of bringing the matter before another tribunal, but lately created by theologians and philosophers: public opinion. You cannot, they said to Arnauld, allow yourself to be condemned like a child, without making known to the public what is the point at issue. The learned doctor, who had already in several of his works addressed the world as distinct from the church, now wrote a paper with this end in view. But it was received by his friends without any applause, upon which, turning to Pascal, "You who are young," said he, "surely you might do something." Pascal did not believe himself capable of anything more than sketching out a rough draft. Nevertheless he set to work, and in a few days had completed the task. He read to his friends what he had written; and they were all enraptured with it. On January 23, 1656, appeared the first Provinciale. Was this quarrel into which Pascal entered nothing

but a theological dispute? Was it his talent alone, his verve and eloquence, that gave to the Provincial Letters their value and interest? Are they only works of art in which a particular subject of local and passing import is clothed in an ideal and immortal form?

By no means so. These writings are living utterances, like the speeches of Demosthenes. In them Pascal wages war upon actual and formidable realities, upon a powerful Order enjoying the protection of the court; he risks being put into the Bastille. While carrying on a theoretical controversy, he is employing all the weapons at his disposal for the overthrow of an enemy who, in the opinion of Port Royal and himself, is the destroyer of the church of God.

The question of grace is no invention of doctors of theology. When Jesus Christ had once revealed to man that he alone was the way, the truth, and the life, Saint Paul, defining the principles of the doctrine, taught that grace, by which God calls man to himself, is free, that is, granted solely as a gift and not as a reward; that God has mercy on whom he will, and whom he will he hardens, according to the inscrutable decrees of his providence; that he himself works in us to will and to do; and that all this is because the motive of the divine action is both the glory of God and the sovereign efficacy of the sacrifice of a God. doctrines Saint Paul opposed to the wisdom, falsely so called, of the pagans, who, more especially the stoics, attributed to man himself the power of attaining virtue. It was the restitution to God of the divine prerogative which man had arrogated to himself.

The pagan doctrine of free will, however, not content with the tolerance accorded to it by the fathers, soon threatened to dominate christianity through the Monk Pelagius. The grace of God, said he, is given to man according to his merits, and is not indispensable to salvation.

Against Pelagius arose Saint Augustine, teaching that man possesses nothing but what he has received; and that, being separated from God by inherited sin, he can no more return to him naturally than an empty vessel can refill itself. The grace of God through Christ: such is the necessary and sufficient condition of our salvation. In vain did the semi-Pelagians endeavour to reconcile the pagan with the christian principle by admitting that if the action profitable to salvation can begin without grace, it cannot end or complete its purpose without it; Saint Augustine would have none of this compromise; and semi-Pelagianism stood condemned.

The schoolmen, who found in Aristotle the expression of natural revelation as the counterpart of supernatural revelation, could not fail to come under the influence of the philosopher. Saint Thomas assigns a greater part to reason and free will than does Saint Augustine. Grace is with him the completion of nature. Nevertheless, such acts as are truly religious and profitable to salvation have in God their principal source, as also their end. Even the right impulse by which a man is made ready to receive the gift of grace is an act of free will prompted by God, and proceeds chiefly from God. Duns Scotus, on the contrary, inclined towards Pelagianism. According to him,

original sin has deprived man of his supernatural gifts, but has left to him his natural gifts. His free will remains and enables him to prepare himself for the initial act of grace and to deserve it. It was in this same sense that the Thomists came to assert that man of himself possessed power; that effectual grace was only necessary for leading this power on to action; and that effectual grace even could not produce the action unless free will consented thereto.

Whilst the schoolmen, although inclining to one side or the other, were seeking to reconcile the christian point of view with the pagan point of view, the Reformation, absorbed in purifying christianity from all that was not of its essence, repudiated any idea of reconciliation. Luther denied out and out the merit of works, and held that the merits of Jesus Christ are made our justification by the sole fact that we believe ourselves to be so justified. This was grace in direct opposition to nature.

The work of the council of Trent consisted in maintaining with the same force two principles, believed to be equally necessary and equally true. On the one hand, grace is omnipotent, and its spontaneous call is needed to enable man to enter on the way of salvation. On the other hand, man is free and his free consent is needed to enable grace to accomplish its work within him.

What would logic have to say to such a doctrine as this, which apparently combined contradictory elements? Many accounted that logic, in spite of its resistance, was bound to give way, on the ground that two truths of equal certainty could not really be

incompatible. Others sought to do away with one or other of the two terms.

Thus it was that Baïus, reverting to the strictest doctrines of Saint Augustine, asserted the radical impotence of fallen humanity. Original sin consists in concupiscence, of which baptism takes away the guilt, but not the malignity. The impulses of this concupiscence, even though involuntary, are sins.

The Jesuit Molina, on the contrary, following the lead of Duns Scotus, endeavoured to screen free will from the tyranny of grace. According to him, effectual grace does not differ essentially from prevenient or sufficient grace, being effectual not of and by itself, but only by the adding thereto of the free consent of the human will. It lies with ourselves whether grace shall become effectual or remain simply sufficient. Thus does free will co-operate expressly with grace. God proposes, man disposes, as taught the stoics of old.

In this doctrine, which spread very quickly, Jansenius saw a deadly blow to Catholicism. It was in his view a covert revival of the early Pelagianism; and Pelagianism, through the medium of Origen, had come down in a direct line from pagan philosophy. Seneca had said: "We owe it to the immortal gods to live; to philosophy to live rightly." This same pride of man, uplifting himself against God, yea, evan above him, was in the eyes of Jansenius the very kernel of the Molinist theology. On the other hand, Jansenius could neither concede to the protestants that God himself makes man to sin, nor to Baïus that he can be said to have sinned when the will to do so was

not present. He resolved then to avoid both pitfalls by a strict following of Saint Augustine. Having spent twenty years in studying his writings, which he read through as many as thirty times, he made a systematic exposition of his teaching in a huge work called Augustinus, which he furthermore submitted respectfully to the judgment of the Holy See. He makes the Augustinian doctrine commensurate with the religious history of mankind, and with this idea expounds the state of man before the fall, the consequences of the fall, satisfaction through the grace of Jesus Christ, and predestination.

According to his view, man before the fall was such as the Molinists represent him to be now, that is to say, the arbiter of his own holiness and blessedness. The effect of the fall was not simply to deprive man of the supernatural gifts of grace, so as to leave him bare, as it were, in a state of pure nature as yet intact or only partially spoiled. The state of pure nature is nothing but an invention of theologians imbued with the spirit of Pelagianism. Man is essentially a reasonable creature. Now the very notion of a reasonable creature implies a claim to be happy, that is, to love God; and it implies also the possession of means to attain that end, that is, divine grace, without which it is impossible to love God. A reasonable nature implies then, in its very essence, supernatural endowments. Hence it follows that the fall corrupted the human soul through and through. Man willed to separate himself from God, and in fact did so separate himself. The place of divine love in his heart was taken by the love of self, concupiscence, which embraces all the vices, even as the love of God embraces all the virtues.

Hence the forgiveness of sins is not enough to effect the loosening of their bonds, as the schoolmen would have it, followers of the philosophy of Aristotle. Sin is not a stain to be washed away; it is a corruption of the soul; and the deliverance of man can only be wrought when, for the fleshly delights to which he is enslaved, God shall substitute, as an all-conquering delight, the work of grace, by which He moves him to love that good he once spurned.

In arranging the teaching of Saint Augustine so as to support this view, Jansenius ran too violently counter to the teaching of the Jesuits to allow of their remaining passive. They did not make it their business to prove that Jansenius had incorrectly reproduced the teaching of Saint Augustine. The fiery African, the hot-headed doctor, as one of them called him, inspired them with distrust. But they searched the Augustinus for some statements which they might brand as heretical. Their efforts to get their adversaries into trouble did not come to anything for several years, and then it was partly due to the support granted them by the Queen Regent, who was dominated by Père Annat, a Jesuit, and confessor to the king. The work, which was posthumous, had appeared in 1640; and it was in 1653 that a bull was published condemning the five propositions extracted from the Augustinus by Nicolas Cornet, president of the Faculty of theology. These propositions dealt with man's relation to divine grace and predestination. Apart from their context, and taken in their

immediate sense, they appeared like the all but complete negation of free will and the affirmation that Jesus Christ had not died for all men. They were moreover most skilfully chosen, inasmuch as Bossuet declared them to be the very kernel of the book.

The Jansenists, being most sincerely attached to the church and opposed to protestantism, might perhaps have yielded, had the difference been purely a theological one; but their condemnation of the Jesuits was as much on the score of ethics as of theology, and they considered the two branches of teaching as inseparable.

The ethics of the Jesuits consisted chiefly of casuistry. In one sense, this was no new thing. If already in ancient times, following in the footsteps of Aristotle, the strict school of the stoics had conceived of duty as variable with regard to practice, while absolute in theory, the christian church, concerning itself with the practical, and aiming at the individual salvation of souls, could not fail to admit analogous ideas. The system of confession and spiritual direction largely contributed to this. For much attention was given to adapting the eternal precepts of God to the will and the changing needs of individuals; to considering, in all their variety and complexity, the cases which come before us in real life; and to drawing from such study the teachings which it supplies in regard to duty and the imputing of sin: this was casuistry. From the Middle Ages downward there are plenty of examples of it to be found. Its development was fostered by the doctrines of Duns Scotus and Occam, giving prominence, as they did,

to the will and to individuality. But what was to begin with only a matter of practice and custom became in the hands of the Jesuits a system. Escobar set himself the task of making possible to all men absolution in this life and salvation in the life to come. To this end, in the case of every forbidden action, he applies himself to distinguish so nicely the precise case in which it is forbidden from the cases in which it is permitted, that the prohibition is found at last to have scarcely any application at all. Where Aristotle had placed the living judgment of the right-thinking man, the Jesuits set up written rules, subtle and complicated, which served to obscure the law and tended to usurp its place.

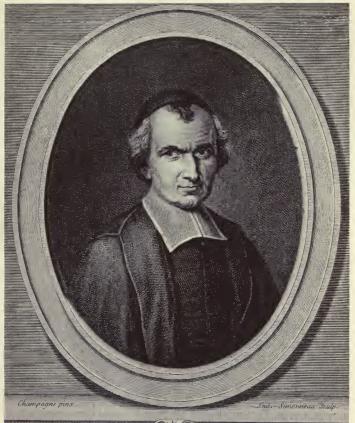
The danger of such a system could not fail to strike religious minds. Ever since 1565 the university of Paris had been demanding the expulsion of the Jesuits. And indeed the first presentment of christian morality had been a very different thing from what it became in the hands of Escobar. Jesus Christ had said: He that loveth me not keepeth not my sayings; and Saint Paul had pronounced anathema against them that love not the Lord Jesus. Here was no question of cases and circumstances. Augustine had made love to God the fundamental and absolute duty. And it was upon this love that the church had lived. It was contrary to the spirit of christianity to seek salvation in mere obedience to written rules, leaving out of account the purity of the heart.

The Jansenists were on this point likewise in agreement with Saint Augustine; and in the writings of

PORTRAIT OF ANTOINE ARNAULD,

From a Painting by Philippe Champagne.





Antoine Arnauld Docteur de Sorbonne



this father they found the affirmation of the relation which exists between the duty of love to God and the doctrine of divine grace. "The love of God," said Saint Augustine, "is spread abroad in our hearts not by the free will which emanates from ourselves but by the Holy Spirit which is vouchsafed to us."

Such was the dispute in which Pascal found himself unexpectedly involved. He could not do otherwise than embrace with enthusiasm the cause of Arnauld and Port Royal. By his education, by his religious faith, by his conversion, wholly spiritual as it had been in its nature—he was, to begin with, the natural partisan of the Jansenists as against the Jesuits. He had lately written a short paper on the Comparaison des Chrétiens des premiers temps avec ceux d'aujourd'hui (Comparison between the early christians and those of the present day), in which he deplored the fact that the spirit of the world was invading the church itself, and that even within its pale religion was mixed up with fashionable vice. On the theological side he was totally unprepared for such a controversy. He had never been a student of theology, and had paid more attention to the spirit than the letter of scripture. In an affair so full of pitfalls for the unwary, competence is not to be attained on the spur of the moment; nor indeed is it likely that even if he had had the necessary time for study he would ever have become a strong theologian. What he desired was to understand; and, for him, understanding meant the bringing of words to the test of fact and experience, whether outward or inward. He would never have been able to fight single-handed against the most skilful

of adversaries. But his friends were at hand to furnish him with texts and explain to him the learned definitions and distinctions of the doctors. He worked from the notes with which they supplied him, after himself verifying the references and taking note of the context. Nicole revised the greater number of the Letters and even arranged the plan of several of them.

On the other hand, Pascal brought to this dispute certain qualifications and tendencies calculated to furnish him with weapons of a peculiar force. Already the Jansenists had followed the example of the protestants in appealing to the public, though without abandoning their point of view as theologians and scholars. But Pascal had no special label; he was simply a man, one who had sounded the depths of human nature and knew its profound and elemental tendencies, its needs, its cravings, its passions, its joys, its loves; and man was the centre to which he referred everything. Religion itself he looked at as it affected man. So it was to be no theologian writing for theologians, but a man addressing mankind; and a question of the schoolmen was thus to be transformed into an appeal to the good sense, the conscience, the rightmindedness, which are to be found in every human soul.

And the form, the tone and the diction were all to be of a like straightforward character. Pascal hated pedantry, conventionality of expression, the use of technical terms, rhetoric and verbal processes; in his every utterance he aimed at the heart, and spared no effort to move it. He was gifted with a verve, an imagination, an incisiveness, of whose effects he had already made trial. His ideal was an art of speaking and writing so entirely human that its effect upon the will should be no less sure than that of demonstration upon the intellect. He would treat then the most abstruse questions with an air quite other than that of the professional. He would employ the language of polite society. Throwing his compositions into the form of letters, he would make use of dialogue, create characters, put them on the stage as it were, endow them with individuality, flavour their discourse with wit, grace, passion, irony, anger, indignation, bitterness; in a word, he would give life and reality to the ideas he was to expound, to the end that passing beyond the intellect they might penetrate to the heart, the centre of life and action.

The question in its first stage seemed wholly individual and personal. Arnauld having been condemned on the question of fact, it now remained to prevent his being condemned on the question of right. The condemnation had been palpably due to the defection of certain Dominicans of Paris who had gone over to the Molinists. These recusants Pascal attempted to recall.

How could these men, who professed to be Dominicans, thus unite themselves with the followers of Molina. The union had come about for the sake of one word. The Molinists taught that the just have always the power-at-hand (pouvoir prochain) to pray to God. By this phrase, of their own invention, they mean that the just have all that is necessary for action. Now the Dominican neo-Thomists, who are supposed equally to admit a power-at-hand, define it

thus: A power which remains ineffectual unless united with effectual grace, which latter is not vouchsafed to all and determines the will. Evidently the agreement is only a verbal one. In reality, the neo-Thomists think with the Jansenists and are bound in fairness to take their side.

This was what Pascal desired to show them. He imagines a man of position, Louis de Montalte, who writes to one of his friends living in the country to inform him of the disputes going on at the Sorbonne. Montalte is, after the manner of Socrates, highly ignorant and highly desirous of receiving instruction from those who give themselves out as qualified to impart it. He is anxious to know the nature of the charge brought against M. Arnauld and the Jansenists; and upon consulting a Thomist, a Jansenist, a Molinist, a neo-Thomist, he learns that the grievance is the non-employment of the expression power-at-hand.

But what idea is to be attached to this phrase? Molinists and neo-Thomists with one accord put aside this question; for it would divide them. If M. Arnauld will only say power-at-hand, he will be a Thomist, not to say a Catholic; if not, he is a Jansenist and a heretic. But he does not speak of this power as being either at-hand or not-at-hand. Then he is a heretic. He declines to allow this phrase, at-hand, because he cannot get it explained. Then Jesuits and neo-Thomists cry out with one voice: You must say that all the just have power-at-hand, taking no account whatever of the meaning of the word. This you will say, or you will be a heretic. For we are in the

majority and if necessary can call in the grey friars to swell our numbers.

The Letter appeared anonymously on January 23, 1656, and its authorship was not suspected. It somewhat disturbed M. Singlin, who did not find in it the true ring of Saint Cyran. But it had an enormous success with the public and caused much excitement among theologians and in political circles. The doctors mentioned in the letter waxed extremely wroth. The Chancellor nearly choked with rage, and had, so the story goes, to be bled seven times.

The very day after the appearance of the first *Provinciale*, the doctors (to the number of sixty) who were friendly to Arnauld withdrew from the assembly as a protest against the irregularity of the proceedings. Pascal immediately set to work to compose another letter after the plan of the first.

There is, he said, a second point upon which Jesuits and Jansenists differ; to wit, the doctrine of grace. The Jesuits would make grace a gift to all alike, and so far subordinated to free will that it lies within the choice of the latter to render grace either effectual or non-effectual. This they call sufficient grace. The Jansenists, on the contrary, consider only effectual grace to be actually sufficient, and they say that one can never act without effectual grace. What say the neo-Thomists? They admit sufficient grace granted to all, adding however that for action there must needs be effectual grace, which God does not grant to all. Now what is this kind of grace but sufficient grace which yet does not suffice? The Dominicans are once more going over to the Jesuits on

the score of one word when all the time, so far as doctrine goes, they are on the side of the Jansenists. Is it not unworthy of the order of Saint Thomas thus to desert the cause of grace?

It is all very well for you to say these things, replied the worthy father; you are unfettered, you are only an individual, while I am a monk and a member of a community. Our superiors have bespoken our suffrages. And indeed our order has done all in its power to uphold the teaching of Saint Thomas touching effectual grace; but the Jesuits being now the leaders of the popular faith, we should be in danger of being cried down as Calvinists and treated as the Jansenists are, were we not willing to temper our assertion of effectual grace with the avowal, at least in seeming, of a sufficient grace.

Come, come, reverend father, responded Montalte, your order has had an honour conferred upon it to which it pays but scant heed. It is abandoning that grace which has been entrusted to it and which has never been so abandoned since the world began. It is high time its championship should pass into other hands; it is time that God should raise up for the Doctor of Grace some intrepid disciples who, ignoring all the entanglements of the age, shall serve God for His own sake.

Just when Pascal was completing this second letter, on January 29, 1656, he learnt that M. Arnauld had been censured by a hundred and thirty votes against nine. Arnauld however did not flinch, but prayed the Lord to succour him that he might contend for the

truth even unto death. Cut off from the body of the Faculty, he went into hiding to escape the Bastille.

Meantime Pascal, finding his Letters read and appreciated everywhere and sanctioned in high quarters, by Chapelain and Mme. de Longueville among others, boldly withstood the condemnation. Arnauld's proposition: The Fathers show us, in the person of Saint Peter, a just man to whom grace, without which we can do nothing, was wanting, -is obviously justified by the language of Saint Augustine and Saint Chrysostom. Why then do the Molinists attack it? In order to have a pretext for cutting off M. Arnauld from the Church. Of explanation they furnish none, finding it easier to produce monks than arguments. men are these, able men, men of resource. They concluded that a censure, even though unfairly obtained, would have its effect upon the ignorant multitude. In fact the proposition in question is only heretical when it comes from M. Arnauld. That which is catholic in the fathers is heretical in M. Arnauld. Behold a heresy of a new order; it is not the opinion which constitutes it, but the person. Theological disputations pure and simple! What do they concern us who are not doctors of the church?

Thus far Pascal's attitude had been merely defensive. He wanted to win back the neo-Thomists. But now he was about to assume the offensive; and the better to track the evil to its source he would turn his weapons against the Jesuits. In the fourth Letter the capital point is already reached: the aim of the Jesuits is the commutation of sin.

What is needed, asks Montalte of a Jesuit father,

before an action can be imputed to us as a sin?—God must have given us before we committed it: Firstly, the knowledge of the evil contained in it; secondly, a warning urging us to avoid it.—But those whom we call sinners are precisely those in whom these two conditions are not realised; for were they so realised sin would be impossible. There is to be no more sin then in daily life, and they may well cry out when they see Father Bauny pass: Ecce qui tollit peccata mundi.

For our part, replied the Jesuit, we maintain that the conditions are perpetually realised, and that in a present grace always vouchsafed by God to all mankind.—But this is a question of fact. Facts are not under our control; it is we who have to bow to them. Now experience shows that those who are steeped in vice and ungodliness are wanting precisely in that knowledge and that inward warning without which you declare there is no sin .- The just at least have always both the one and the other.-Pray are you ignorant that there is such a thing as unconscious sin; that a man may be led to commit wrong actions believing them to be good, and that he is none the less guilty for all that? Otherwise how do you account for the secret sins of the just? or how can it be true that the holiest of men ought always to dwell in fear and trembling, as saith the scripture? Cease then to assert with your modern writers that one is not in a position to sin when one does not know what is right; but say rather with Saint Augustine: Necesse est ut peccet, a quo ignoratur justitia.-A sin of ignorance is not a sin.-The only ignorance that can absolve us is ignorance of fact, not ignorance of right.

So proceeds the interview with the Jesuit father who is most obliging, most affectionate, most bland, most adroit. He would so gladly have continued the conversation had not Mme. la Maréchale de . . . and Mme. la Marquise de . . . been announced to see him. Montalte professes unstinted admiration for the beautiful outcome of his doctrines; but already some seriousness is mingled with his pleasantry, for now the subject is no longer one of pure theology, it has become one of morals. If the Jesuits are right, the passing action is everything, the inner and permanent being is nothing; and actions themselves are the more excusable the more corrupt and ignorant the heart from which they proceed. With Pascal, being is the principal thing and our actions derive their moral significance from that deeper part of our nature which is at times beyond the reach of our consciousness. Meanwhile he cannot confine himself to this indirect refutation of the practice of the Jesuits, but has already made himself acquainted with their ethical writings, has been shocked by them and has come to the conclusion that their slackness of morals is the real source of their doctrines as touching grace. Did they uphold the great duties of the christian life, renunciation of self and love to God, they would not then be able to escape the necessity of looking to God alone for the strength wherewith to accomplish them. But for the practice of a wholly pagan morality, nature will suffice. Man has no need of grace for the doing of simple material acts without a thought for the transforming of his soul.

At this point then Pascal meditates a change of

method. Instead of wasting time in the discussion of theological theses, he will now devote himself to practical issues, and will show how the Jesuits deal with our most sacred duties; how they understand the direction of souls; what are the ends they pursue; what the means they employ to attain them. It is to the public that Pascal is addressing himself, a public that is chiefly moved, and rightly so, by precepts bearing upon practical life.

Pascal was gradually becoming enamoured of a work in which he had seen nothing at first but an occasion for serving his friends. Now he was ready to do and say everything for the sake of breaking a power which he judged to be fatal to the church. For the sake of greater freedom of speech he remained anonymous. He paid secret visits, under the assumed name of M. de Mons, to the Roi David inn, in the Rue des Poirées, behind the Sorbonne and opposite the college of the Jesuits. One day he was nearly caught; but his brother-in-law, M: Périer, succeeded in bowing out the worthy father without his catching sight of the copies of the latest Provinciale spread out upon the bed to dry; and they both hugely enjoyed the joke. He applied himself to his task with all his might, reading twice right through Escobar's Petite théologie morale, attentively examining all the texts furnished to him by his friends, labouring to perfect the style of his Letters, and bestowing upon them an incredible amount of care and mental striving. He spent twenty entire days upon one only. Some of them were begun afresh seven or eight times; the eighteenth, it is said, thirteen times. So well was he aware of the fact that

the truth itself, apart from forcible expression, will not avail to move the indifference and frivolity of mankind. He would fain make use of all the art of which he was capable, and he knew that art is only perfect when it succeeds in being concealed. Art only achieves itself in naturalness, a thing so difficult to our perverted nature.

It is a veritable comedy that Pascal invents. Montalte, desirous of being instructed in the moral system of the Jesuits, consults a worthy casuist of the Society, with whom he purposely renews a former acquaintanceship and from whom he receives a most cordial welcome. "This worthy father," he narrates, "began by bestowing upon me a very affectionate greeting, for he is still fond of me; and then we imperceptibly drifted into the subject in hand." Montalte finds it incredible that the Jesuits should be astute enough to deprive every sin of its malignity, and he ventures to express his doubts. With an obligingness and a readiness that never desert him, the good father replies to each question with the appropriate and decisive text, affording clear proof that the Society has not been calumniated. Montalte is amazed; by insensible steps he induces the unwary apologist to quote more and more shameless assertions, until at length the cloak of raillery is laid aside and the deadly struggle begins.

From the fifth letter onward Pascal aims straight at the heart of the foe. Whereas the God whom christians adore only recognises as his servants men who are humble and of pure intent, set free from earthly ambitions, the Jesuits have made it their accepted maxim that it is good for the cause of religion that their repute should extend far and wide, and that they should rule all consciences. They have made their dominion the measure of the dominion of God. Now for the sake of attracting men and getting them under their control, they have persuaded them that God requires nothing from them beyond the virtues natural to men, thus degrading our duty to the level of our limitations, our feebleness, our sloth, making the rule bend in deference to that which should conform to it, and corrupting the law that it may be meet for our corruption. Thus they play fast and loose with the precepts, making them at will either severe or lax, pagan or christian, according to the persons whom it is desired to win. Such is the spirit of the Society, such the principle of its newly-formed methods. In their hands religion becomes policy, and the moral code is reduced to casuistry.

The basis of their system is the schoolmen's doctrine of probabilism, which has been adopted by the Jesuits and has received their special mark. Probabilism with them consists in placing the verities of faith and conscience in the same category with concrete facts such as we know only from the witness of men. Has such and such an event taken place in Rome? On a point of this kind I must needs refer to a witness of some credibility. Is it permissible to lie, to steal, to kill? This with the Jesuits is a question of like nature, and must be solved by consulting doctors of repute—notably, the casuists of their society. Any opinion is probable and may be received with a sure conscience, which carries the authority of one learned

man; the witness of a single well-known doctor being enough to render an opinion probable. In case of contradictory opinions among the doctors each of these opinions is probable. Even the least probable is yet probable. Thus I have no use for my own conscience; and the conscience of Basile Ponce or Father Bauny will suffice.

It was against this probabilism that Pascal directed his first attack. How do you manage, he said, in cases when the opinion of the fathers runs counter to that of certain of your casuists? The fathers, answered the Jesuit, were all right for the morals of their own times; but they are too far removed from us to be our guides, and we who rule consciences read them but little and quote only from the modern casuists, Villalobos, Conink, Llamas, Achokier, Dealkozer, Dellacruz, etc., etc., of whom the earliest does not date so far back as eighty years.

Thus did Pascal convict the Jesuits of contempt of the fathers and innovation in matters of morality. The very day on which this fifth *Provinciale* appeared, March 20, 1656, the recluses of Port Royal, being persecuted in consequence of Arnauld's condemnation, were obliged to disperse; and still graver measures were anticipated, such as the removal of the confessors and the dispersion of the nuns.

Whilst Port Royal was in this unhappy and unsettled condition it was all at once visited of God by a startling prodigy. On March 24, 1656, at Port-Royal-in-the-City, Marguérite Périer, Pascal's niece, was cured of a running ulcer through touching one of the thorns of our Lord's crown. A profound impression was

produced in and around the monastery. While the faith of the Jansenists was strengthened by this attestation of divine favour, the Jesuists began to publish libels by way of giving vent to their dissatisfaction. The recluses were allowed to return to Port-Royal-inthe-Fields and nothing more was said about depriving the nuns of their confessors. As for Pascal, he had spoken of this very subject to a free-thinker only a few days before, telling him that he believed miracles to be necessary and that he did not doubt that God sometimes worked them even now. Assuming that God had taken note of the word thus spoken in His name, Pascal was seized with great joy and fresh ardour, for now he could oppose to the onslaught of his persecutors the sacred and awful voice of God himself. Seventeen days after the miracle appeared the sixth Provinciale, and the attack, ever more and more rigorous, was to be carried on with redoubled energy in four more Letters, from April 25 to August 2, 1656.

How, inquires Montalte of his interlocutor, do your casuists reconcile the contradictions to be met with between their opinions and the decisions of the popes, the councils and the scriptures?

The question in no wise embarrassed the worthy father, the difficulty having been duly considered and solved in an understanding manner by the Jesuists. To be sure they would have been glad enough to establish no other maxims than those which are to be found in the Gospels. But men are in these days so corrupt that we cannot win them over to us and must needs go to them instead. The one important point is

never to discourage any one, never to drive the world to despair.

This was why the casuists in the first instance came to think of their system of interpretation or definition. Thus Pope Gregory XIV. having declared that assassins were not fit persons to enjoy the privilege of church sanctuary, the question was how in spite of this to allow it to them. All that was necessary was to define an assassin as one who had been bribed to slay another treacherously. In this way the greater number of those who kill cease to be assassins.

A second means is the noting of favourable circumstances. Thus, the popes having excommunicated those monks who put off their monkish dress, the casuist notes that the bulls do not mention the cases in which they put it off to go out as pick-pockets, or to visit places of debauchery *incognito*, or for any other purpose of a like nature. If then they doff their habit for any such end they incur no excommunication.

A third means is the double probability, for and against. When the pro and the con are both probable, they are both safe. Now when a pope for example has pronounced on any subject in favour of the affirmative, it does not follow that the negative may not also have its probability. Every opinion advanced by a doctor of authority becomes in time probable, and may be followed with perfect safety provided that the church has refrained from contradicting it.

By the suitable employment of these methods, the Jesuit fathers prevent an infinity of sins, whether common to all men or belonging especially to certain conditions of life. Beneficed clergy, priests, monks, valets, noblemen, judges, business men: all these may learn how to evade the commandments which more especially concern them. The beneficed clergy may henceforth practice simony, the priests say mass after committing a mortal sin and the monks disobey their superiors.

Some special modes of procedure are invaluable in certain cases. Such are the system of directing the intention, and the doctrines of equivocation and mental restrictions.

When the Jesuists cannot prevent an action they fall back upon purifying the intention, thus allowing the purity of the end to counteract the wickedness of the means. The precept is: have some legitimate object in view. Thus, there is no sin in a duel provided that one's intention is so directed that the duel is accepted, not for the sake of killing, but for the sake of defending one's honour or fortune; a son may desire the death of his father if only the ultimate object of his desire be not to have him die but to inherit his goods.

The doctrines of equivocation and of mental restrictions are most useful for the sanction of lying. The first prescribes the use of ambiguous terms, so arranged as to convey to others a different meaning from that which they bear to oneself. The second prescribes the passing through one's mind of some circumstance which shall do away with the untruth without in the least being evident in the words uttered aloud. For example: I swear that I did not do it (before I was born).

It is wonderful how many sins are cancelled by these

inventions. Not quite all, however. Thus it was asked whether the Jesuits might kill the Jansenists? They could not do so without sin, because the Jansenists no more obscured the splendour of the Society than did an owl that of the sun.

The fruit of this praiseworthy zeal is religion made easy. Henceforth there is a way for men to be saved without trouble in the midst of the amenities and comforts of life. The worthy fathers know of certain honours to be rendered to the Mother of God, easy of performance and enough to ensure an entrance into paradise. And what matter how we get into paradise, if only we do get in! Henceforth there is scarcely any mortal sin which may not be converted into a venial sin. Take for example ambition. If you aspire to great things so as to be able the more easily to offend against God, that is assuredly a mortal sin; but in all other cases it is no more than a venial sin. venial sins are compatible with a religious life. good fathers have so cleverly smoothed over the difficulties of confession that crimes are expiated nowadays with more speed than they could formerly be committed. Contrition is no longer necessary; it is enough if there be attrition, which is thus defined: The sense of shame for sin committed, or else fear of the pains of hell; without any impulse of love to God.

Love to God, the first of all duties; it is from this that every effort of these pretended christians tends to emancipate us. They teach that to do works and to refrain from hating God is enough. You carry out certain practices mechanically, without yielding the heart; an Ave Maria repeated now and again, a string

of beads on the arm, a rosary in the pocket, and you may count on the magical effect of these acts of devotion. The licence that has been taken in tampering with the rules of christian conduct is carried beyond all bounds; even to the violation of the great commandment which contains all the law and the prophets. They attack godliness in its essence, they rob it of the spirit which is its life. They declare the love of God to be not needful for salvation. They go the length of asserting that this exemption from the duty of love to God is the boon which Jesus Christ has brought into the world. This is the full measure of impiety: the price of the blood of Jesus Christ is to obtain for us for sooth a dispensation from loving him! And so those who have never in all their lives loved God are to be made worthy to enjoy him throughout eternity! Behold the mystery of iniquity accomplished.

Such is the cry of horror drawn from Pascal by this last feature of the Jesuits' teaching on matters of morality. The fiction that had formed the setting of the *Provinciales* falls to pieces at the same time. Montalte will visit the worthy father no more. The time is gone by for comedy, tragic though it were under its cloak of irony. The Letters are to be no longer the pleadings of an advocate, how ardent soever he might be. It is now Pascal himself, alone, face to face with the Company of Jesus.

A fresh struggle had in truth ensued on the quarrel concerning Arnauld; for now the clergy, somewhat perturbed by the account given in the *Provinciales* of the Jesuit teaching, made it their business to lay these statements before the General Assembly of the clergy

of France. The Jesuits for their part after several months of silence began to retort, now that Pascal had gone so far as to asperse their casuistry. They published one reply after another, defending themselves by attacking in their turn the man whom they called the mouthpiece of Port Royal, reproaching him with intentionally holding up sacred things to ridicule; with making his appeal to the impure instincts of his readers; with want of exactitude in quotation; with making the Jesuists responsible for doctrines commonly received and anterior to these fathers; and with attributing to the Society as a whole the paradoxes of certain more or less obscure individuals.

Pascel felt himself nerved afresh with indignation and vigour. What I have done hitherto, he answered, adopting a saying of Tertullian, is but a preliminary trial of skill before the real fight. Now he is to begin a straight-forward defence, laying bare the depth of perversity of his adversaries.

How dare you say I have turned sacred things into ridicule? It is one thing to laugh at religion, and another thing to laugh at those who profane it. Besides, are we forbidden to use ridicule as a weapon against error? Just as truth is worthy not only of love but also of respect, so does error contain, together with the impiety that makes it hateful, an element of impertinence that makes it ridiculous. God himself has said to sinners: In interitu vestro ridebo. Truly, that is a curious kind of zeal which is angry with those who point out public sins rather than with those who commit them. But if you want to see examples of impertinent buffoonery you have only to open your

own writings and read the Dévotion aisée (Religion made easy) the Éloge de la Pudeur (In praise of chastity) of your Father Lemoyne, in which gallantry vies with impudence.

You accuse me of imposture; yet I have merely reported word for word the opinions of your best authors, Vasquez, Escobar, Lessius. How comes it that when one of your fathers brings forward with approval the opinions of Vasquez because he finds them probable and convenient for the rich, he is neither a calumniator nor a forger; whilst I, on the other hand, if I bring forward the same opinions, am a forger and an imposter? The reason of this is simple: you are strong and I am weak; you are a powerful body and I stand alone; you are backed up by violence, while as for me I have behind me nothing but the truth. A strange warfare this; violence endeavouring to trample down truth! The two cannot touch each other, they are on different planes. No amount of argument can put an end to violence; but neither is violence of any avail against the truth. And while to the one, God has set limits which it cannot pass, the other is eternal even as God is eternal.

One of the impostures with which you reproach me, Pascal goes on, is what I said of your maxims regarding homicide. Here you manage things in a truly wonderful manner. You distinguish between speculation and practice, declaring for instance that in the case of a blow received the opinion according to which homicide is legitimate is probable in speculation, but that in view of the interests of the state it is not to be recommended. Next you say that

provided the inconveniences to the state are avoided the homicide in question is legitimate even in practice. And thus your distinction between speculation and practice is nothing but a ruse by which you reach the point of excusing homicide..

You will perhaps offer the objection that you merely attribute this opinion to certain theologians. But according to your own teaching on probable opinions that is enough to make it a safe rule of conduct. Here is another instance of your policy. To excuse sin you bring forward texts; to refute those who convict you of excusing sin you bring forward other texts. Double-minded men that you are, it is against you that the divine curse is pronounced: Væ duplici corde et ingredienti duabus viis.

A few days after the publication of this thirteenth Letter, on October 16, 1656, Pope Alexander VII. condemned the five propositions taken, so the bull said, from the book of Jansenius, and that in the same sense in which Jansenius understood them.

Pascal, avoiding for the time being this thorny question, continued with redoubled energy his refutation of the ethical maxims of the Society. He returned to the subject of homicide, and wrote that fourteenth Letter, one of the fiercest of them all, under which the sang-froid of Father Nouet completely broke down. Pascal here exposed the Jesuits as being regardless of all canonical teaching, regardless of the authority of the fathers, the saints, and the scriptures, and as supporting their diabolical maxims by impious arguments. Whilst laws divine and human make for the entire prohibition of homicide, the Jesuits contrive

to sanction it. They make it legitimate to kill in return for a blow, a slander, or an insulting speech. The fact that any one wants to steal six ducats from you is enough to give you the right to kill him; nay, an apple suffices if only it is discreditable to you to lose it.

For what pray would they have us take them? For children, or for enemies of the gospel? The honour which is of Jesus Christ involves suffering, that which is of the devil will have none of it. Jesus Christ said: Woe unto you when all men shall speak well of you! And the devil: Woe unto them whom the world esteemeth not! On which side are the Jesuits? They have managed to secure the condemnation of their adversaries in Rome; but they themselves are condemned of Jesus Christ in heaven.

Yet how comes it to pass that they lead even devout souls astray? In order to account for this we shall have to go still more deeply into the secret wickedness of their ways. They have converted calumny into a system of tactics. Resting assured that as monks they would be considered incapable of such a crime and that their word would always be believed, they proceeded to divest calumny of its sinfulness by teaching that calumny is not a mortal sin when its object is to shield one's honour. Again, they had no difficulty in persuading themselves that every attack levelled against their Society was an attack against Hence they set to work to prepare forged pamphlets which should bring odium upon their enemies, proceeding generally by vague insinuations, hinting at abominable crimes such as they would not dare retail. Now to every one of these unproved accusations there is but one reply: Mentiris impudentissime.

After this fashion have they slandered pious ecclesiastics and saintly nuns, accusing them of being in league with Geneva, when they are the very people who abhor the doctrines of Calvin. They accuse them of forming a cabal to erect deism on the ruins of christianity. O cruel and cowardly persecutors that you are! You have had your answer from heaven itself in the miracle of the Sacred Thorn!

Meanwhile the Jesuits, more and more exasperated against the writer of the *Provinciales*, accused him personally of heresy as a member of Port Royal.

I do not belong to Port Royal, answered Pascal, who in fact was not permanently settled there and had always exercised his full right of independent thought. I stand alone, and have no other tie on earth than the holy Catholic Church, Apostolic and Roman. From the world I have nothing either to hope or to fear. I escape out of your clutches; and all your assaults on Port Royal will not avail to shield you from my attack. As for the impious propositions which you accuse me of supporting, I detest them with all my heart. For myself, I assert my own express and individual belief that Jesus Christ died even for the lost and not for the predestined alone.

For the rest, it is false to say that the church is split by a new heresy, as you would make people believe. Those whom you call Jansenists reject, as heretical and Lutheran, the five incriminated propositions. All they deny is that these propositions are to be found word for word in Jansenius. Now this is a

question of fact, and no man either can or ought to lord it over the consciences of others when it comes to a question of fact; for such questions depend only on perception and reason. Even popes have been known to go astray on points of fact. Did the decree you obtained against Galileo prevent the earth from turning round, and yourselves from turning with it? It cannot be an article of faith that a book is bound to contain the error which the church finds in it.

It was upon the question of fact that Pascal, taking up the Arnauld affair again, now concentrated the discussion. He affirmed, on the word of his friends, that the propositions did not appear literally in the Augustinus. Strictly speaking they are approximately there. But it is evident that Pascal would equally have refused to declare under the pressure of authority that they were not there. His protest is against the question itself. The scholar and the philosopher rose up within him against the confusion of the two lines of attack.

Moreover he did not shrink from the discussion of the deeper issue, and after personal reflection upon it he saw no incompatibility between the power to resist grace, as admitted by the neo-Thomists, and the infallibility of the effects of grace, as taught by Saint Augustine. His study of mathematical infinitude had opened his eyes to the possibility of a logic of a higher kind than the logic of the understanding properly so called, in the light of which, things that contradict each other cannot co-exist. In Jesus Christ the finite and the infinite are met together; and in the same way free will and grace, considered as to their essence,

are not two incompatible things which can only be reconciled by imposing limits upon each other. They can exist together without any such limitation; there is fundamentally a close union between them; their separation is only a mental process of our own. Divine grace itself invites us freely to share with it the work of our salvation.

If those who are called Jansenists thus admit the co-operation of free will, why are the Jesuits so determined to make them confess that the propositions they condemn are to be found in Jansenius? This again is part and parcel of their tactics. The Jesuits want to abolish the effectual grace of Saint Augustine and of christian doctrine, which convicts them of ungodliness and paganism. But they do not dare openly to attack Saint Augustine himself. They begin with the thin end of the wedge, and having remarked that the grace of Saint Augustine forms the basis of the book of Jansenius they manufacture, by the use of extracts from this book, certain propositions which on the face of them seem to be heretical; and, without proving that they bear the meaning attached to them by Jansenius, they ask you to sign the condemnation of the book. This condemnation once recognised, they will have no difficulty in showing that the grace upheld by Jansenius is the veritable grace of Saint Augustine, and with the fall of its defender, it also will fall.

In the meanwhile, the Assembly of the clergy of France, having received the bull of Alexander VII. on March 17, 1657, shortly before the publication of Pascal's eighteenth *Provinciale*, prepared a formulary condemning Jansenius, which was to be signed by the

ecclesiastics. The anxiety this aroused at Port Royal was shared by Pascal who took up his pen to write a nineteenth *Provinciale*. "Be consoled, father," he said to Father Annat; "those whom you hate are afflicted." But whether reassured by the energetic opposition displayed against this measure even by many of the bishops or fearing that the more and more confounding of the enemies of Port Royal would only exasperate their violence, he gave up the struggle; and the *Provinciales* came to an end in the middle of a sentence.

The success which had attended them from their first appearance only went on increasing. The Latin translation published by Nicole in 1658 found even greater favour than the originals, and made them popular throughout Europe. The public conscience was with Pascal. But Rome condemned the work as heretical; the bishops and the Sorbonne, under pressure from the government, likewise condemned it; and a decree of the Council of State of September 23, 1660, ordered that the book entitled Ludovici Montaltii Litteræ Provinciales was to be torn up and burnt at the hands of the public executioner.

Pascal was not disturbed by these condemnations. "If my Letters are condemned in Rome," he writes in his notes, "what I condemn in my Letters is condemned in heaven." And he adds: Ad tuum, Domine Jesu, tribunal appello. A year before his death, being asked whether he repented having written the Provinciales, "My answer is," he said, "that so far from repenting of it, if I were going to write them now I should make them still stronger."

CHAPTER VII.

CLOSING YEARS. La Roulette.

The miracle of the Sacred Thorn, occurring as it did during the struggle with the Society of Jesus, had had a great effect upon Pascal. He had seen in it the mark of a divine purpose concerning him. It had served to increase his already great zeal for the conversion of sinners and unbelievers. And since he had learnt the extent to which a worldly spirit can prevail even within the pale of the church he set himself more than ever to encourage the spread of the pure spirit of the gospel.

The miracle itself, of which he had been a witness, caused him to be the instrument of a remarkable conversion. Among other persons who at that time visited Port Royal to pay their devotions to the Sacred Thorn came Mlle, de Roannez, sister of the Duc de Roannez. The brother had been known to Pascal since 1650, and had been converted through his means shortly after his own final conversion. Mlle. de Roannez was twentythree years of age, and a woman of the world. Being touched by divine grace she now thought of becoming a nun, and spoke of her intention to some of the members of Port Royal, possibly first of all to Pascal, with whom she could not fail to be acquainted, and afterwards through him to M. Singlin. She also refused a marriage which her brother was proposing for her. Then from Poitou whither the latter had taken her with the idea of giving her an opportunity for selfexamination, she entered into correspondence with Pascal, sending him sacred relics from Poitou and receiving from him in return some special prayers to be recited at tierce. The question under discussion between them was the following: Ought Mlle. Roannez to remain in the world or withdraw from it?

Pascal begs that she will ponder this saying of a saintly woman: That the question to be considered is not, am I called upon to withdraw from the world, but simply, am I called upon to remain in it; just as one would never stay to consider whether or no one were called upon to leave a plague-stricken house, but only, if one ought to stay there. These are the terms in which we should state the question, always supposing that the path of greater safety is the one to be followed.

Mlle. Roannez however was torn by internal conflict and hesitated to break away from her past. Your suffering, replied Pascal, should not keep you back; it is a sign of the divine call; for you know well that when we have once voluntarily yielded ourselves to the guidance of another we feel the restraint no longer, but when taking the first steps in defiance of natural inclination we do suffer greatly; the suffering is the consciousness of the struggle that is going on within us between our fallen nature and divine grace. And Pascal accumulates texts and arguments such as are likely to convince the girl's somewhat wavering mind, placing them before her with an eloquence so illuminating, passionate, forceful, nay, well-nigh violent that it not only commands the adhesion of the intellect but startles the will into action. He follows step by step the girl's spiritual development after the manner of a most careful and experienced director of souls. He does more than this; he puts himself into his letters; he revives the sufferings and emotions of his own conversion; he imparts to his correspondent his own anguish of mind on the present condition of the church and its prospects for the future; he establishes a bond of fellowship between the timid and shrinking soul of the girl and his own soul, filled with the divine, ardent, powerful, commanding.

Pascal's letters were a source of spiritual strength to Mlle. de Roannez. She longed for them and used to complain when Pascal wrote to her brother without enclosing any separate message for her. Pascal sought to encourage her. I am much pleased with you, he wrote, and I admire your continuance in zeal, for it is a far rarer thing to persist in the religious life than to enter upon it.

Yet Mlle. Roannez became conscious afresh of an inward sorrow and bitterness of spirit. Of what nature was this suffering? Was it of God or of man? Was it the sorrow that killeth or the sorrow that maketh alive?

It was in this condition of mind that she returned to Paris. There she again saw Pascal and her hesitation vanished once for all. She spoke of her resolve to her mother, who tried to keep her back. Then she fled to Port Royal.

So long as Pascal lived she braved all the efforts made to get her back to the world. In vain did the Jesuits succeed in removing her from the abbey; she lived a life of religious seclusion under her mother's roof. When Pascal was dead she rebelled against the chiding rule of Arnauld, obtained release from her vows and at thirty-four married the Duc de la Feuillade. She was afterwards sorely tried through her children, of whom the first died unbaptized and the second was born deformed. After undergoing terrible operations she died at fifty years of age, in 1683. She had been repentant since 1671, and had bequeathed a legacy to Port Royal. She had kept some of Pascal's letters and now found in them a source of consolation and a means of sanctifying her afflictions; so that in the end of her life she felt herself to be once more in that Port Royal where she had known happiness in days gone by.

The correspondence with Mlle. de Roannez had once more revealed to Pascal his vocation as a director of souls. From this time he turned all his meditations to account in the great design he had formed of writing a book against atheists, which should serve not only to confound them but to turn their hearts and set them in the way of conversion. Having lived in the world he was aware of the great vogue which free thought had there. He knew that Mersenne counted in Paris fifty thousand atheists, more dangerous foes than any Turks. He was often sought by persons troubled with religious difficulties, or by advanced thinkers who came to argue with him against the dogmas of the faith.

The miracle of the Sacred Thorn suggested to him many reflections which seem to have been the point of departure of his new work. But its real origin lay in his whole past and in his individual genius. He could never have been content with a solitary piety or with

enjoying the grace of God all to himself. He would fain be the channel through which it spread, lending out his mind as it were to turn to account for the good of others his own newly acquired spiritual enlightenment.

Being persuaded that the chief benefit of the sciences is to put us in possession of methods by which, so far as such a thing is possible, we can demonstrate spiritual truths, he claimed to show after this manner that the christian religion is as fully accredited as other matters which are commonly accepted as the most indubitable Yet he reflected that those whom he was impugning in the Provinciales were equally with himself professing to bring back unbelievers into the church. Now their principles were such as could only serve to exchange one sort of irreligion for another. So that not only were there foes without to be combatted, but also foes within. It was a question of converting men not to a vain similitude of the religion of Christ, but to true christianity, the christianity that should regenerate and save them. Thus his work on religion was to be at the same time the condemnation of the false doctrines of the Jesuits and the refutation of the halting arguments of the freethinkers.

In preparation for the writing of this book he read and re-read the scriptures and the fathers, principally Saint Augustine; he also made use of a thirteenth century work, directed more especially against the Jews. This was the *Pugio fidei* of the Catalonian Dominican, Raimond Martin. It had lately been reprinted in Paris, in 1651. But above all he meditated, and he gave particular heed to the order of his ideas,

believing that on this the power of language largely depended.

Having determined upon the main lines of his scheme, he propounded it one day at Port Royal, spending two or three hours in explaining it to his friends there. They were delighted with his discourse, and agreed that they had never heard anything finer, anything more powerful, touching, or convincing. There is no doubt that had Pascal written his book at this time, about 1658, he would soon have completed it; but he had accustomed himself to work up with infinite pains everything he wrote. He was scarcely ever satisfied with his first thoughts and would re-write eight and ten times passages which to everyone else seemed admirable in their first form. Still he went on pondering.

Gifted with an excellent memory, he used to write but little. About 1658 however, his continual headaches having made him subject to loss of memory, he began the habit of jotting down on scraps of paper the ideas that came into his mind. His extreme difficulty in satisfying himself gave place to a fear lest the work should remain unfinished even if some measure of health were preserved to him. His infirmities however which grew intolerable caused the pen to drop from his hands before the actual composition had been taken in hand.

While his state of ill-health became more and more of a hindrance to his work he turned it to account for the furtherance of his spiritual growth. His principle was that it does not suffice merely to obey the commandments of God, but that duty requires of us

VIEW OF THE INTERIOR OF THE CHAPEL OF PORT-ROYAL-IN-THE-FIELDS.

Above the original engraving is inscribed:

Eglise de l'Abbaye de Port-Royal-des-Champs dédiée à la Sainte Vierge l'an 1230, sous Grégoire IX.

The tomb of M. d'Andilly is just within the door to the left; that of M. Singlin, in the background, in the left-hand corner of the transept. of so de labage de Port Royal des Champs Dedice ala Sunte me



so to reform our hearts that whatever we do for His glory shall be really and entirely a voluntary act. Now he was only too conscious that he was not a christian by nature. He had a fiery temper, apt to be ungovernable, a craving for preeminence, a tendency to ambition, pride and rebellion. He was impetuous in his affections, and easily moved to anger and irony. He was possessed by such a passion for science that when once under its spell he forgot all else. Believing that suffering, which enfeebles the body and consequently the lust of the flesh, is the natural condition of the christian, he sought to increase its effects yet more by self-mortification. Systematically and of set purpose he waged an inward war against the three lusts of the flesh, the intellect and the will.

He used to wear an iron belt barbed on the inside next to the bare flesh, and on any impulse of vanity would beat himself with a cord, so as to increase the strength of the prickings. He put from him everything that gratified his taste; he made himself poor that he might be like Jesus Christ. He loved the poor tenderly, and would borrow rather than refuse them alms; having invented a system of carrosses-omnibus which proved a great success, he asked for a thousand francs of the profits to be advanced to him that he might send them to the poor of Blois who had been reduced to great want by the winter of 1662. This project was unfortunately not carried out.

His strictness on the question of purity was carried to an incredible degree. His injunctions on this matter evinced a delicacy which roused the admiration of the most pious ecclesiastics. His vivacity and impatience had given place to a wonderful gentleness, more especially towards those who admonished or injured him.

He weaned himself from the things he held most dear; he now regarded mathematics as futile, and only estimated the sciences in the light of their bearing upon religion. He took care to let even the ties of kindred sit lightly upon him; and equally he would have no one form a binding attachment to himself. "Who am I," he would say, "that I should be the object in life of another, for I must die." During this same period, he wrote to Mme. Périer that to arrange a marriage for her daughter upon whom the miracle had been wrought would be, as the Port Royalists put it, to commit a kind of deicide in the persons of the married pair.

He was scrupulous in his performance of religious observances. He took a more and more lively pleasure in the reading of Holy Scripture, which he came to know by heart. He was especially fond of Psalm cxviii., where it is said: Quando facies de persequentibus judicium? He knew that all God requires of us is summed up in love; and, by applying himself with all his might to the renunciation of pleasure and to self-abasement, he prepared himself for the receiving of divine inspiration.

And divine love came down and entered into him; he was conscious of the indwelling presence of Jesus Christ; he communed with him.

"Be comforted," said the Saviour; "thou wouldst not be seeking Me hadst thou not already found Me. In My agony I thought of thee; 'twas for thee I shed those drops of blood. Thy conversion rests with me; fear not at all, and pray with confidence as for My sake."

And Jesus revealed to him the mystery of His two-fold nature. How he had been really and truly man, and had partaken of the weakness and misery of man; even more so than we ourselves. He suffered, he saw himself forsaken, he agonised. But whilst our sufferings are simply endured and then pass away and are done with, his which are born of love produce strength and life. And Pascal answered from the bottom of his heart: "O Lord, I give Thee all!" He has recorded this spiritual converse in a fragment called: Le Mystère de Jésus. And now he scarce touches earth more; virtue is no longer enough for him; he would attain sanctity.

Yet how comes it that at this same epoch we find him engaged in organising, with wonderful energy, a competition on a problem in mathematics, and writing on this subject letters and memoranda that recall the most brilliant period of his scientific career?

His niece Marguérite Périer relates how one night, when suffering from severe toothache, he took it into his head to try to assuage the pain by fixing his mind on something which should make him forget it; and, turning his thoughts to the roulette problem which Father Mersenne had once propounded and no one had as yet been able to solve, he discovered its demonstration—and was cured. He would have made no use of this solution had not M. de Roannez pointed out to him that in view of his present scheme for attacking the atheists, it would be as well to show them that he

knew more than they did on every subject that admits of demonstration. With this idea M. de Roannez advised him to offer a prize of sixty pistoles to anyone who should solve the problem, and Pascal threw open the competition in June, 1658, fixing the limit of time at eighteen months. This length of time having elapsed and the examiners having adjudged that no one had solved the problem, Pascal published the demonstration and used the sixty pistoles for his printing expenses.

Such is Mlle. Périer's account. The amount of labour Pascal underwent on this occasion was really considerable. He thought over his demonstrations for several months before propounding the problem; and he wrote, under the pseudonym of Amos Dettonville (an anagram of Louis de Montalte), a great number of essays and letters both in Latin and French.

It we may take his word for it, it was not at all for the love of mathematics that he thus returned to them. He writes to Fermat in 1660 that mathematics are only good for the testing of one's powers, not for their employment. Yet in the same letter he calls Fermat the foremost of living men; and in offering his prize avers that his sole object is to do public homage to the man who shall find the solution, or rather to make known the merits of such a scholar. He speaks of fame as in times gone by; and as in times gone by he rebukes those who vaunt themselves unduly. May it not be that, led away even unwittingly by that science which seemed to be innate in him, he once more returned unconsciously to his old allegiance?

But whatever of that, the results were fortunate.

Not only did Pascal consider the roulette problem from a far wider point of view than had been done before, but the methods he employed were such as gave him the right to be reckoned (as M. Delègue has pointed out in an essay on his mathematical work published in Dunkirk in 1869) among the creators of the infinitesimal calculus.

He is in possession of all the metaphysical bases of this calculus. He lays down the principle that in continuous quantities there are different orders of infinity, differing from each other in such a way that some of them are pure negations with respect to others; as for instance the point in relation to the line; again, he sees that every finite quantity may be considered as divided into an indefinite number of elements which bear the same relation to each other as the finite quantities from which they are derived. From these principles he deduces the possibility of freeing geometrical arguments from the limits imposed upon them by the incommensurability of continuous quantities reckoned in numbers formed of finite and indivisible unities; the possibility of bringing back to the straight line the elements of the most diverse quantities; the possibility of considering two quantities, infinitely near in the order of succession, as equal to each other; the possibility of simplifying the expression of the increase of a given quantity, when that expression is susceptible of including heterogeneous quantities.

Even if, in addition to these general principles, he did not formulate the rules proper to the infinitesimal calculus, it is certain that he applied the most

important of them; and it can be proved that he possessed the art of finding tangents by the system of indivisibles.

His labours had an influence on the discovery of Leibnitz; for, in reading Dettonville's Letters, says that philosopher, Subito lucem hausi. "The Traité de la Roulette," writes d'Alembert, "will always be valuable as a singular monument to the power of the human mind and as serving to link together Archimedes and Newton."

One subject in which Pascal had never ceased to take an interest was that of politics, regarded in the light of its general principles. He had always been a most loyal servant of the king, asserting that in a republic it was a great mistake to attempt to institute monarchy, but that in a state where royal power was already established it was a kind of sacrilege to contend against its representative, royal power being not merely an image of divine power but an actual participation of it. The subject of the education of princes was a favourite one with him, and he made no secret of the fact that he would willingly have given his life to so important a task.

At one time, about 1660, he had occasion to give some advice to a youth of high rank, probably the eldest son of the Duc de Luynes, then about fourteen years of age. He gave him three most remarkable addresses, of which Nicole wrote a digest, some nine or ten years after having heard them. Strange as it may seem, even in this analysis is to be found the imprint of Pascal's genius; so indelible, as Nicole observes, was the impression left upon the mindaby everything he said.

It is by mere chance, said Pascal to the young prince, that you possess the wealth of which you find yourself master. You have no right whatever to it in yourself or of your own nature. The arrangement by which these possessions have come down to you from your ancestors is a matter of institution, and of human institution. Your soul and your body in themselves belong neither to the station in life of a common waterman nor of a duke. Perfect equality with all men: that is your natural condition. The people, it is true, are not in this secret; they believe that titles of nobility constitute real greatness. Do not discover to them their error which makes for the tranquility of the state; but whilst acting outwardly as becomes your rank, think upon your real condition and keep yourself from presumption.

There are two kinds of greatness; the kind that comes by nature, to which belong knowledge, virtue, health, strength; and an arbitrary kind of greatness, created by the will of man for the sake of keeping the peace; such are rank, dignities, titles of nobility. God has willed that we should render something to both the one and the other. To the first we owe honour, to the second outward respect. We must address kings upon our knees; it is folly and littleness to refuse them this homage. I am not called upon to esteem you because you are a duke, but I am called upon to salute you. On the contrary I shall pass the geometrician without salute, but I shall esteem him above myself.

God is the king over men's affections, while you are only king over men's bodies. Act then as such a king, not attempting to rule men by force, but satisfying their desires, relieving their necessities, making it your pleasure to do good as the world accounts good. True, this does not carry you far, and if you rest here you will be lost; honourable member of society as you may have proved yourself, you will still be lost. You must do more; you must despise the flesh and its kingdom and aspire to that kingdom of love of which all the members desire nothing but that which appertains to love.

Whilst Pascal, withdrawn from the strife of men, was thus devoting himself to his own spiritual development and that of others, he was rudely thrown back into the fierce conflict between authority and conscience.

Since 1657 the question of the formulary seemed to have sunk into oblivion. Port Royal once more breathed freely, and one by one the recluses went back to their retreat. But in 1661 the court, wishing to put an end to the Retz faction and regarding Port Royal as the centre of opposition, demanded the dismissal of all the pensionnaires as well as of the novices and the probationers. The vicars-general of the cardinal then drew up an official order for the signing of the formulary. This order seems to have been made under the auspices of Port Royal; it is even said that Pascal had a hand in drawing it up. But the nuns found that if the order was obscure and vague,

on the other hand the formulary which followed was only too clear; and they were seized with misgivings at the thought of signing it. For these saintly women shrank from so much as the shadow of wrongdoing. They were asked to condemn the doctrine of Jansenius as not being that of Saint Augustine. They feared lest this distinction should prove an erroneous one, and they themselves be found to have really condemned Saint Augustine while thinking to condemn Jansenius.

Of all the nuns, Sister Jacqueline de Sainte-Euphémie was the one who showed the strongest repugnance. "Nought but the truth can make us free," she wrote, in June, 1661, to Sister Angélique de Saint Jean, sub-prioress of the monastery in Paris. "But how if they excommunicate us from the church?" "Do we not all know that none can be turned out of the church against his will, and that the spirit of Jesus Christ being the bond which unites his members to himself and to each other, we may indeed be deprived of the outward signs but never of the effect of this union so long as we keep our hold on divine love." According to Sister Euphémie the order amounted to nothing less than giving one's consent to a lie without denying the truth. "I am well aware," she wrote, "that it is not for women to defend the truth; yet since the bishops are showing the courage of women, it behoves women to show the courage of bishops. If it is not our place to defend the truth, it is our place to die for the truth."

Arnauld meanwhile met all objections, and his authority decided Port-Royal-in-the-Fields to follow the example of Port-Royal-in-the-City and sign the

document. Jacqueline signed, and then died of grief for it three months later at the age of thirty-six. Jacqueline was the one person whom Pascal loved above all others. When he received the fatal news he only said: "God grant us all to die a death like hers."

At this juncture the enemies of Port Royal did not lay down their arms, but exacted a fresh signature with the addition of a more categorical profession of faith. And now it would seem that Jacqueline's very spirit passed into the soul of her brother who from this time forward was immovable in his determination. The doctors and confessors of Port Royal were losing ground; but Pascal laid down definitely the subtle distinction between fact and right; and in a pamphlet upon the signature he declared plainly that to sign the formulary without restriction was to sign the condemnation alike of Jansenius, of Saint Augustine and of effectual grace. And without circumlocution he rejected all compromise whatsoever as abominable in the sight of God and despicable in the sight of men.

Just that had happened, so he thought, to which he had looked forward in the seventeenth *Provinciale*. It was effectual grace which had been really aimed at and which was to-day being attacked through Jansenius. Now the submission we owe to the Holy See by no means absolves us from that which we owe to christian love of truth. Furthermore, Pascal considered that the pope had no more authority independently of the church than had the church apart from the pope. Unity and numbers were, to his thinking, inseparable. Numbers which fail to be reduced to unity are confusion; while the unity which does not take

account of the separate units is tyranny. The fathers speak of the pope sometimes as a whole, sometimes as a part; and we must put these two assertions together, under pain of taking away from the words of the fathers. The authority to which we owe obedience is the combined authority of pope and church.

Pascal was under some apprehension lest, from a wish to preserve the community of Port Royal, his friends should be disposed to make concessions. "Our place," he said, "is to obey God, let what will be the results of our obedience; for Port Royal to be afraid is not the way to mend matters."

After a lengthy discussion all the members of Port Royal agreed to follow the example of Arnauld and Nicole, who proposed to sign on condition of one modification. Upon this Pascal fainted and fell down speechless and unconscious.

Meanwhile the desired alteration was refused and it was insisted upon that the nuns should sign the document as it stood. This they refused to do. So far from believing that by this refusal they separated themselves from the pope and the church, Pascal held that by it they remained united to the indivisible Catholic Church, eternal and invisible, which alone is the true church of God.

Meanwhile, ever since the month of June, 1661, Pascal's state of health had been growing worse. He was all the more assiduous in forgetting himself for others and in giving all his thoughts to God. He had received into his home a poor family, a child of which fell ill of the smallpox. Fearing the contagion for his sister's children who used to come every day to see

him, he left his own house and went to stay with Mme. Périer rather than turn out the sick child.

His friends at Port Royal, notably Arnauld and Nicole, went to see him more and more frequently and talked with him on religious matters. He confessed himself several times to M. de Sainte-Marthe, likewise to M. Beurier, vicar of Saint-Étienne-du-Mont, his own parish. The latter, knowing him to be the writer of the *Provinciales*, asked him whether he did not feel some self-reproach on their account. He replied calmly that his conscience in no wise reproached him on this score, that he had acted solely for the glory of God and the defence of the truth and had never been actuated by any personal animosty against the Jesuits.

Feeling himself to be near his end he earnestly besought that he might be allowed to communicate, and upon this grace being refused him on account of his weak condition, he desired at least to communicate with Jesus Christ through His members, the poor, and expressed a wish to have near him a poor man who was ill and to whom the same services should be rendered as to himself. As this could not be carried out at a moment's notice, he begged to be taken to the hospital for incurables, that so he might die in the company of the poor. Meanwhile he suffered more and more, and wished, not without some conscientious scruples, to have a consultation. The doctors tried to reassure him; but he did not believe them, and desired that a priest should be sent for to pass the night beside him. Towards midnight he had a convulsion which ceased as if by miracle to enable him to receive the blessed sacrament while fully conscious. "Here," said the priest to him, "here is what you have so much desired." Then as the priest questioned him, according to the usage of the church, concerning the principal mysteries of the faith: "Yes," he answered, "I believe that with all my heart." And having received the communion, he said: "May God never forsake me." These were his last words. He died on August 19, 1662, at the age of thirty-nine years and two months.

Those who had been about him revered him as one blessed of God and a saint.

CHAPTER VIII.

THE PENSEES.

Among the papers left by Pascal there were found to be numerous notes relating to his projected work on religion. After examining these fragments, most of which expressed complete thoughts, while a few appeared to have received their final form, Pascal's friends and relatives thought good to prepare them for publication. It was not so much a question with them of displaying the peculiar genius or increasing the fame of one who took for his maxim: The assertion of self is odious; but rather of carrying out the intentions of the humble servant of God and the church. For this reason they proposed, while still preserving the captivating beauties of the text, to clear up an obscurity here and there, to mark the sequence and connection of the parts and also to soften certain expressions which if wrongly interpreted might have led to some misapprehension of the writer's meaning.

By way of preface to this publication, Mme. Périer wrote shortly after her brother's death a Life of Blaise Pascal. But it was not until August, 1668, when Pope Clement IX. was believed to have put an end to the Jansenist quarrels and made the Peace of the Church, that they set to work to arrange the fragments. The Duc de Roannez had the greatest share in this labour. He was seconded by Arnauld, Nicole and others of the Port Royal fraternity. It was somewhat difficult to reconcile M. and Mme. Périer to the changes that were thought advisable; but Arnauld explained to M. Périer

that one could not be too careful in dealing with enemies so malignant as those of M. Pascal, and that it was not worth while to run the risk of having to abandon the publication altogether for the sake of retaining a few expressions of no great importance. Thus did these friends of Pascal, to whom he had confided his thoughts, endeavour in a spirit at once discerning and reverential end keeping constantly in mind all he had himself told them of his plan and of his ideas, to give a faithful outline of his projected work.

The printing was completed in 1669; the publication did not take place until 1670. The work, entitled Pensées de M. Pascal sur la religion et sur quelques autres sujets, qui ont été trouvées après sa mort parmi ses papiers (Thoughts on religion and on certain other subjects, by M. Pascal; being writings found among his papers after his death), was prefaced not by the Life of Pascal, which it was feared might give too great a prominence to the personality of the writer, but by an introduction written by his nephew, Étienne Périer and explanatory of M. Pascal's design. The volume appeared under the sanction of several bishops and doctors.

This first edition was intentionally incomplete and manipulated. The editions supplied by Condorcet in 1776 and Bossut in 1779, although more complete, yet retained many deviations from the original text. Victor Cousin in 1842 drew attention to these divergences, and the efforts for the exact reproduction of the manuscript date from this time. The publications of Faugère (1844), Molinier (1877), Michaut (1896, 1899), and Brunschvicg (1897), have by

degrees solved this difficult problem. In M. Michaut's edition we are face to face with the direct expression of Pascal's living thought and the working of his imagination. For here are his veritable notes and fragments, scrappy, often unfinished, full of erasures, additions and alternative readings, sometimes consisting of nothing more than the beginning of a sentence. or merely a suggestive word or two jotted down to refresh the memory. We come upon him communing with himself in the inner chambers of his heart; we view, detailed before the public, many a nascent thought, as vet scarce formed, and quite untried, which maybe he would have rejected or modified on more mature reflection. The fact of gaining possession of these manuscripts, most valuable of course in itself, is a source of keen joy to those critics who, having given up their faith in matters of abstract belief, find all their pleasure in studying personality; and, although they disdain the ideas of a Pascal, yet deem it highly interesting and amusing to dissect his mind and heart. Yet one would think those whom we call great men may as well be merely ranked as abnormal, if the productions of their genius are to have no real value. Is it not incumbent upon us, in view of the admiration we flatter ourselves we bestow upon them, to look first of all in their writings for that expression of eternal truth which it was their intention to place there and to transmit to us?

It is hopeless to think of tracing the plan of the Pensées or even of the work in preparation for which they were set down on paper. But we may well interrogate these fragments as to the design Pascal had formed and the travail of soul he desired to produce in his reader. In regard to this, we have a certain amount of guidance in the notes, taken by Étienne Périer, Filleau de la Chaise and Mme. Périer, and handed down to us, of the discourse in which Pascal unfolded his ideas to them, about 1658.

Pascal did not propose to demonstrate the verities of religion after the purely abstract manner of geometrical proof. His idea was to say nothing that should not commend itself to the individual for one of two reasons—either because he was inwardly conscious of the truth of all that was pointed out to him; or because he saw plainly that he could follow no better way than the one set before him.

He had first of all in view a class of people very hard to convince, who went by the name of free-thinkers; men who, by virtue of a certain amount of scientific knowledge but ill understood and a smattering of philosophy, went about making a parade of their unbelief. He saw typical examples of free thought in two men whom he had known intimately, and of whose mental powers he had once thought highly—Méré, who claimed, in face of the teachings of religion, still to abide by his honnêteté; Miton, who though by no means blind to the corruption of human nature yet believed it possible to remain indifferent and uncurious.

In order to get at the root of the evil, the ideas of Montaigne had to be attacked. Him Pascal knew thoroughly. He had read and re-read that strange Apologie de Raymond de Sebonde in which, under pretext of justifying the employment of human reason

in dealing with atheism, Montaigne amply demonstrated that our reason ceases to be reasonable the moment it quits the domain of those things which appeal to the senses and touches religious and philosophical questions; and that natural impulse is a better guide for the ruling of conduct than is this soidisant privilege of our race. How was it possible to win over to religion men who had adopted such principles as these?

As for any direct way of making the truth of religion as certain to them as that of mathematics, it was not to be thought of. For of the two forces within us which would have had to be convinced—reason and nature, the first, by their own confession, contradicted itself on these questions, and the second was sufficient to itself. Of course, it was still conceivable that faith should be superimposed on nature, as, upon a given straight line, a parallel line. But in the absence of any connecting link between it and nature, this faith became nothing more than an individual opinion.

So the inverse method must be adopted; and, taking our stand upon the study of human nature, in which the advocates of free thought think to entrench themselves, we must show them that this human nature is not such as they suppose it to be; that a purely natural state, devoid of any element higher than nature, is a thing impossible to man; that only in Jesus Christ does he find the satisfaction of his yearnings and the completion of his being. In like manner, the idea the sceptics had formed of the reason must be reconstructed; to the end that faith, in place of being

superadded to our intellect as something heterogeneous, may become its indispensable complement and fulfilment. But how were men rooted in self-sufficiency to be brought to recognise that they were not sufficient unto themselves? How prove to the indifferent and the haughty that they were called upon to come forth from their aloofness and court humiliation?

The first step was to study the means of persuading men; to find out the most suitable method to be adopted and the order in which the arguments should be disposed.

There is a great difference between knowing God as does the pagan who sees in him merely a geometrical fact; as the Jew, who sees in him only a providence working in the lives and affairs of men; and as the christian, to whom God makes himself felt as his one and only good. It is this third kind of knowledge that we have to create.

Now from the very first there arises a contradiction which seems to foredoom all our efforts to barrenness. The end sought is the transforming of the will and the affections. Now such a work as this is possible to divine grace alone, and this grace is altogether supernatural and a free gift. Corrupt creatures as we are, we can do nothing to provoke the action of grace whether in ourselves or others. We can only deal with changes in outward conduct, which have no effect upon the heart save by the interposition of God. What place can there be for any action of ours together with the divine action?

The contradiction would be insoluble, had God and man to be represented as existing side by side,

separately, as it were, in the midst of space. For the human action, limiting the divine action, would be i negation, and yet the divine action, being of infini extent, would leave no place at all for human action But God is a person and man is a person, and between persons there are other relations than physical one Through love they become one without ceasing to h distinct; they interpenetrate without absorbing each other. Such are the three persons of the divir Trinity. And thus providence is able to confer on suc of its creatures as are persons the dignity of causality and can even make use of us in the work of the conversion of our fellows. Our pleadings, ou arguments, our voluntary efforts, may be the manife tation, foreseen and willed by God, of the inwar work of grace. We know well that only God is abl to convert us; but his work leaves room for an demands our own.

This makes our course of action clear. Of ourselve we can do nothing. If therefore the writer aims a his own glorification and flatters himself that he wi triumph through his eloquence, then his speech is not of God and is without power for good. In order to be efficacious the utterance should be that of the divin voice speaking through human lips. He who would proclaim the truth must needs abase himself and make himself of no account before it.

Once imbued with this spirit we can and ought t use, so far as in us lies, all the means that nature and art put at our disposal.

We know there are two elements in the art o persuasion, corresponding to the two avenues into th

human soul;—the art of convincing, which appeals to the understanding, and the art of pleasing, which appeals to the will. Geometricians are our models in the art of convincing. The art of pleasing has also its rules which are suited to the inconstant nature of our feelings. Now the conversion of man is hindered by his sloth, his passions, his pride; in a word, by his self-love. We need not think to subdue this feeling by an idea. A passion yields only to another passion. It is a question of awaking within the soul the scorn of self and the love of God. It is the growth of divine love that will lessen the power of self-love. The art of pleasing serves mainly to remove obstacles out of the way and to incline the heart towards the love of God.

In addressing others with a view to touching their hearts a certain order has to be followed. The heart has its own order, which was followed by Jesus Christ, by Saint Paul, by Saint Augustine. It consists chiefly in digression upon every point that has to do with the end in view, by which means this end is kept constantly before the mind. This is an order which is not unilinear, but convergent. The various parts are not connected with that which has gone before, but with that which is to come after them and bring them into unity.

Furthermore, when it comes to a matter such as that of religion, which concerns the whole man, the art of convincing and the art of pleasing are indispensable to each other and should be closely united. A difficult task this, because the qualities they suppose, the mathematical mind and the intuitive mind, do in a measure contradict each other. The one works from

broad and abstract principles down to their result the other, starting with matters of common knowledg seeks to discover the innumerable, subtle and elusi principles that lie behind them. The adjusting each other of abstract and concrete, axioms and rea ties: such is the required method.

The rules for composition and style which Pase formed for himself, and which have left their manupon the fragments handed down to us, were base upon these principles. Pascal may have written: The true eloquence makes light of eloquence; that is to sat the natural eloquence of feeling makes light of rhetors. But he held that the eloquence of feeling has rules its own just as the heart has reasons of its own.

There are in the matter of eloquence, as in a human doings, three divisions: natural eloquence acquired or artificial eloquence; native eloquence. The which is natural, as it now stands, is a confus mixture of good and evil. Art, taken by itself, is to sum of the rules drawn up by man with a view to be own gratification, and its tendency is to disguinature. That which is native to man is not conformit to a nature that has become his, but a return his true, pristine nature, wholly unspoiled. On by systematic and laborious effort can man, passing beyond nature and art, get to what is really native him. Such was the task Pascal had in mind.

His object as a writer was to move men's sou Success in this kind can come from God alone. This why, before writing, he kneels down and, submitting himself wholly to his Creator, prays that his broth may be led to submit himself in like manner. *Inclin* cor meum; such is his own prayer, and such the prayer he would fain have his reader utter with him. For the best of arguments will fail except the heart be inclined to receive them.

For each one of these departments of eloquence Pascal has his rules.

Let us see what principle underlies them. considers that man is more easily persuaded by arguments he has discovered for himself than by any that have occurred to the minds of others. The writer then should put himself in the place of his readers and make trial in his own heart of the turn he is to give to his argument. The secret of eloquence is to lead the individual man to reflect upon what is going on within him and to acknowledge that the truth which is told him finds an echo in his own breast. Furthermore. the writer must appeal to every side of his reader's nature, so as to lay hold of the entire man, to surround him as it were, to leave him no possible loophole of escape. So interest, pleasure, reason, heart, mind and body, instinct and intellect: Pascal would bring all these into play by way of arousing in man the desire of being converted.

The putting of these arguments before the reader in the most telling order demands the constant feeling of one's way and endless testing of results. For it resolves itself into a question of bringing into unity the thoughts of the mind and the feelings of the heart, which seem to be incompatible. It is always the case with real and living things that their principles, so far from being patent at first, only unfold themselves by degrees. In setting about any piece of writing the chief difficulty is always that of knowing what to put first.

The arrangement of words is particularly important in the expression of moral ideas; for the same idea conveys altogether different meanings according to the words in which it is presented. The primary rule is that the form must always be subordinate to the matter. The aim is not to produce charming pictures but faithful portraits. Let us beware of imitating those bad artists who paint sham windows for the sake of symmetry. But, on the other hand, words have a power of their own. Style should be natural; to wit, simple, clear, unaffected and straightforward. That word should be found which is at the same time familiar, apt and forceful. Preference should always be given to concrete rather than abstract expressions. Things should be spoken of in their bearing upon the imagination, the will and the heart. Lastly, the order in which words are placed is one condition of their power. In a game of paume the players use the same ball, but the best player places it best.

This form of perfection Pascal may be said to have attained. He undoubtedly deserves the name of writer. The innumerable erasures, corrections and revisions with which his manuscripts are loaded sufficiently show what pains he took with his style. This style is distinguished by its richness. It possesses, and that not by turn but at one and the same time, all the qualities that carry the reader along in spite of himself. Mathematical precision, passion, imagination, art and naturalness are here welded together into an indissoluble unity.

His mode of exposition is that of the closest reasoning, presented under a very concrete form: "The assertion of self is an odious thing. You, Miton, may think to gloze it over, but you cannot do away with it for all that; so your self still remains odious."

Pascal gathers up, after the manner of geometricians, a crowd of ideas into one very brief formula: All the law is contained in Jesus Christ and Adam.

Everywhere antithesis; but always in the form of argument, never of rhetorical figure. In fact, the whole of wisdom lies in seeing the contradiction everywhere present in nature and in seeking its human explanation; two kinds of reason which contradict each other: that must be the starting point.

Pascal's diction, one of the models for that of the seventeenth century, still retains the freshness of the sixteenth. It commands a plentiful vocabulary, admitting words familiar, colloquial, homely, as well as those which are noble and learned. It gives preference to everyday modes of speech; it detests high-flown expressions; it calls things by their right names; it brings them home to the reader; it visualises ideas and thus fixes them upon the mind for ever.

His syntax is highly individual and supple: "The prophecies quoted in the gospels, you think they were placed there to induce you to believe. Not so; it is to keep you from believing."

He makes use of hyperbole, the expression which goes further than the thought. This is not with him a mere vagary of style, but the deliberate method of a man who would compel the will. At close quarters with the foe one's view is necessarily concentrated,

and therefore exclusive. Thus he writes: "The only religion which runs counter alike to nature, to common sense and to pleasure is after all the only one which has always held its own."

In common with other characteristics of his style, its harmony enhances the effect of seriousness. To charm the ear would be worth but little; the ear is only taken as a judge when feeling is lacking. But surely it is the feelings and the will which respond to the power of harmony in such a sentence as the following: Malgré la vue de toutes nos misères, qui nous touchent, qui nous tiennent à la gorge, nous avons un instinct que nous ne pouvons réprimer qui nous élève. (Notwithstanding the fact of all our miseries which dwell with us and hold us in their grip, we have within us an unquenchable instinct uplifting us above them.)

Pascal's rule of putting himself in his reader's place, while it guided him as to his manner of writing, determined yet more the choice of his thoughts.

He wishes to move the unbeliever. He places himself first of all at the point of view of the unregenerate man such as we may see him any day. Man, as thus understood, knows one thing only, believes in one thing only, and that thing is himself; he thinks man is complete and self-sufficing. Let us then put before him the presentment of his own being, to the end that he may judge whether it really is possible for him to find satisfaction in himself.

In order to ensure the reader's recognition of himself in this picture, Pascal thinks to borrow its features from that master of freethinkers Montaigne, transferring to the pages of his own introduction to christianity many an observation, many a reflection, taken from the essays of the philosopher-wit. He does not reproduce them exactly in their original form. He picks and chooses, he alters a word here and there; and the same thoughts take on quite another aspect, becoming under Pascal's pen bitter, disturbing, disconcerting, whereas in Montaigne they had only had the effect of easy, pleasant raillery. It is no longer Montaigne but Pascal's own insight that is guiding him.

As in his researches in physics, so here he begins with facts and then proceeds to investigate their causes. The main point is to observe the individual man just as he stands at present, in all the actual complexity of his nature. What is man, for him who would see him thus, not in any idealised condition, but as he really is? Man is a being essentially changeable and complex; changeable, since his natural habitude is passion, which implies instability; complex, since he is made up of parts which are at the same time heterogeneous and inseparable and which cannot be reduced to the fixed principles of geometry.

What are the causes that produce these effects? Restlessness may in truth be conceived of as the progress of a being towards its goal. Such, according to the pagan philosophers, is the natural gravitation of created beings towards God. But restlessness may also be the effect of inward disturbance, of the impossibility of remaining in an intolerable condition. In like manner, complexity may be either the harmonious blending of elements which complement each other, or the forced union of alien principles.

Of these two possible explanations it is, in the case of man, the second that is the true one. Man is a being full of contrarieties.

Consider his will; he wills to have happiness, and it is out of his power to acquire it. His inclinations, which are the condition of his pleasures, are contradictory. He likes rest and he likes excitement. And whilst he is endeavouring to satisfy one craving, that very one is secretly turning into its opposite. What we really and truly wish for is not something better, something grander, something rarer, but simply—something else. There dwells within us a deceitful faculty whose office it is to depreciate those things which are once within our grasp, so as to display in flattering colours those we do not possess; it is imagination. Under its alluring spell we never live but are always expecting to live; and never succeed in being happy though always just about to be so.

Our intellectual faculties are equally contradictory of each other. From the point of view of the senses, things are finite; to the eye of reason they are infinite. Again, there is a contradiction between the reason, which judges by principles, and the heart, which judges by feeling. And, moreover, reason is not even consistent with herself. She sets herself up as judge, and yet in herself has no principles to go upon. The principles necessary to her arguments she draws indiscriminately alike from what is most exalted in our hearts and what is most sordid in our senses. It is just a chance whether she chooses to support the for or the against.

Is it of any use trying to find under all these

contrarieties some one permanent basis which we can really call our nature? Habit has this power over us, that it can constrain, transform, and create nature. Who is to prove that what we call our nature is anything more than habit of still older growth? Our nature is for ever eluding us. We are and we are not.

We can however penetrate yet further than this into the depths of our being. Behind our actions, our faculties and our nature there lies the self, possessing self-consciousness and self-knowledge, and perhaps having also the power to bring order and unity into our actions and our nature. But this self is the victim of a strange malady whose existence it does not even acknowledge to itself-the craving for diversion. What is the ultimate aim of all our doings? What does a man look for from riches, honours, amusements, knowledge, power? He looks to be diverted, to be taken out of himself. The fact is, our heart, as revealed to us by the study of the passions of love, is an abyss at once infinite and empty, an aching void in which all the finite things the world can offer only float about like atoms in the midst of space. We are for ever turning from one to another of these, and still we suffer, because we get no nearer to the end for which we strive. This explains why we seek to escape from ourselves. We have a confused feeling that within us lies the source of all our ills, while at the same time we can in no wise change our condition. Now the question is: Can we really escape from ourselves? This too is impossible; for that self of mine which would fain get free from itself, will still

always be myself with yearnings as infinite as my want of power to fulfil them.

Men have sought however to create, by using their intelligence, some remedies for the vices to which they are prone; and with this end in view have instituted human law and a code of morals.

There is no doubt that, judging superficially, it seems as though our justice were essentially just, and as though we had some means of knowing what is just in itself. But how can we hold to this opinion after using our own powers of reflection and comparison, after reading Montaigne? What diversity in that which should be one and universal! A fine justice this, which a river or mountain can limit! What is the real ground of the justice administered by men? It is time, imagination, physical force; and nothing else. For consider: What is ownership but a usurpation whose remembrance is past and forgotten? What ensures the authority of physicians and judges? Why, in the one case it is their cloth, and in the other their scarlet robes and ermine in which they envelope themselves like so many pussy-cats. In what does the right of our kings consist, if not in their body-guards, their halberdiers, their men-at-arms with bloated faces, whose hands and whose strength are wholly at their service?

Such is our justice. Shallow thinkers hence conclude that there is no such thing as justice. The people, on the other hand, persist in believing in it. And it is the people who are right; but in a way they do not dream of. They believe our laws to be just, and they are unjust; they judge it to be un-

worthy of a man to submit to force if that force be not at the same time a just force, and they do well. Justice is in this world hopelessly obscured and powerless. Since we cannot so order it that what is just shall also be strong, we have ascribed to that which is strong the quality of justice, and the cause of justice has been saved by giving it force for its medium. By this means we ensure peace, which is the first of blessings. But what a strange condition is that of a being who must needs be duped before his wishes can become desires, and for whom the false has to be made to wear the mask of the true, while all the time he is trampling under foot the truth itself.

Our ideas of morality are like our ideas of justice. Nothing is clearer, at first sight, than the principles of the science of living, such as the notions of wellbeing, of happiness, of the end of human life; and what transport awaits him who, after having confined himself to abstract science, shall pass on to the study of morality and the art of right living. Yet, question men as to what things seem to them good, and they will talk to you of the stars and the heavens, of the earth and the elements; of cabbages, leeks, calves, serpents, adultery, incest; of all things in heaven and earth down to suicide. As to those who are moralists by profession, they are divided into two great sects: the Stoics and the Epicureans. The first urge us to make ourselves equal with God; the second account us fit for nothing but to live the life of beasts.

Here again there is confusion and contradiction everywhere. Shallow thinkers come to the conclusion

that there is no law of right living. But they are mistaken, and the people, who persist in admitting the distinction between good and evil, are wiser than they. There is a source of right living, and it is this: The regulation of the thoughts by the highest kind of reason. That is to say, our reason, having need of guidance, must be led by the inspiration of the heart. But does it follow that it depends upon ourselves to know and act upon that which is good? By no means; for our heart, being naturally evil and blind, is not fitted to be our guide in the conduct of life, except it be first transformed and regenerated. And this change is out of our power to effect. We cannot make the dictates of the heart bow to the decisions of the intellect; only our outward acts depend upon ourselves. And thus the law of right living calls us to what does not depend upon ourselves.

If then all our efforts to reduce man's being to harmony only end in making it still more incoherent, what an unnatural creature he must be, what a chaos, what an enigma!

There is a class of men who give themselves out as more learned and profound than others, and who would have us believe that by the mere force of their reasoning they can solve the problem of human nature and discover the means of leading it to perfection. These are the philosophers. Let us see what their doctrines will do for us.

They profess to make reason their sole standpoint. Now reason has assuredly a right to our respect. Its commands are more imperative than those of a master; for while disobedience to the one brings unSIGNATURE OF BLAISE PASCAL.

SIGNATURE OF JACQUELINE PASCAL.

This signature is taken from a verbal process dated April 30, 1647 (MSS. de la Bibliothêque du Roi, Supplément Français, No. 176), when Pascal was twenty-three years of age.

This signature, Sœur Jacqueline de Sainte Euphémie, Religieuse Indigne, is taken from the only autograph letter of Jacqueline Pascal. The letter is dated the 10th February, 1660. It was written from Port-Royal-in-the-Fields and addressed to "My dear nieces, Marie Jacqueline and Marguérite Euphémie, at Port Royal, in Paris."

Sarcas

J.J. le & Euphemie D'En



pleasant consequences, to disobey the other is to be a fool. But, on the other hand, our reason is the play-thing of our senses and our imagination, those wanton and deceitful forces that can bend it at their will. Such is our reason; at once a sovereign and a slave.

On the strength of this contrariety in the nature of reason the philosophic wits would give it no place at all. But they are mistaken. For the power and authority of the reason are no less certain than its weak side. Reason is on sure ground as regards its most general principles, such as those of identity and dissimilarity. But thought demands something more than these principles. It needs also primary truths, fundamental propositions; and these it is that are lacking here. Reason argues well, but upon principles that she cannot test.

One might be tempted to make answer that we know truth not by means of reason alone, but also through heart and feeling, and that through these last organs we learn primary principles. There are certain physical facts: we know them through the senses. Again, there are certain metaphysical facts: we perceive them by our intuitive faculties, as by a sense which is above the senses. By these faculties we recognise that there are three dimensions in space, and that numbers are infinite. True: but one cannot argue from mathematics to philosophy. It is a matter of indifference to us whether space has three dimensions or four, while on the contrary our interest is involved in the problem of our destiny. Accordingly we do not seek after philosophic truth with that singleness of heart which would be needed for its

discernment. Our inclination is to turn away from it; and we have no power to induce in ourselves this singleness of heart.

The philosophers however claim to have solved certain problems, first of all, that of certitude. They are divided, on this point, into two schools: dogmatists and pyrrhonists. These two schools are inconsistent with each other; yet it would be a mistake to let them cancel each other, and thus arrive at absolute doubt. Their doctrines are not both false; they are true. We have a conception of truth which effectually arms us against all pyrrhonism; and our inability to offer proof is a sufficient barrier against all dogmatism. From the point of view of nature, dogmatism holds its ground; from the point of view of reason, the truth is with pyrrhonism. We believe in the truth, and we cannot discover it; we feel that we were made for certitude, and we are incapable of it.

The philosophers think to establish certain moral verities, such as the existence of God, the spiritual life and the immortality of the soul; and certain it is that the demonstrations of those who uphold these verities are of more value than those of their adversaries. But what will it profit them if that which they demonstrate is nothing but an empty abstraction, lifeless and barren? They offer us hypotheses, satisfactory so far as they go, mathematical facts, propositions. But will a proposition meet the needs of the heart? This kind of proof is not only useless, it is dangerous, for it leads us to think we can of our own selves lift ourselves up to God.

As to the facts taught by the sciences, they are with-

out doubt incontestable; but they deal only with the material world and are of no use whatever to our spiritual life. The only effectual use of the sciences is to train the mind in the power of observing and reasoning.

Such is the futility of man's supreme effort to bring his nature into harmony with itself. So far from solving its contradictions, philosophy shows them to be essential and irremediable. We see within ourselves an incomprehensible mixture of greatness and misery, of dignity and unworthiness, of the greatness which aspires to oneness with God, of the misery which can neither know him nor set its face toward him. The soul of man is noble, in that it would fain outreach itself; it is ignoble, inasmuch as it does in fact seek nothing but itself in everything. It is the finite and the infinite, at one and the same time inseparable and incompatible.

Would it not seem then that the wise man's part is to cease reflecting upon himself, take what comes, and fall asleep on the easy pillow of ignorance and indifference? This resolve would be of all others the most criminal and fatal. Man could not cease to care about himself without ceasing to have the attributes of man. Such despair, such cowardice, might be conceivable were man wholly powerless. But his greatness is as real and as indestructible as his littleness. Let him not dream then of appeasing this ever-recurring restlessness which enters into all his joys and poisons them; it is a reminder to him that he was made for better things. Let him rather examine himself candidly; and, seeing the impossibility of either

setting aside or solving the problem of his nature, after having vainly sought its solution in himself and his own limited powers, let him decide to seek it in something higher than himself.

There exist all over the world certain traditional systems of belief which profess to deal especially with the solution of the great problem. These are the various religions of mankind. Truth to tell, they are in general so destitute of proofs, and teach a morality of so low a kind, that the most part of them I cannot even stay to consider. But in passing under review this strange medley of morals and beliefs, I come across a certain people in a remote corner of the world who stand out apart from the rest and whose records precede by several centuries the earliest we possess. The writings of this people tell of strange doings. They relate that man is the creation of a perfect God, who made him in His own image, in a state of innocence and with all sorts of perfection; but that he rebelled against his creator; that in consequence of this he fell from his first estate, and passed on his corrupt nature to all his descendants; but that God in his mercy promised to send to men a Deliverer, who should make satisfaction for them and fill up the measure of their frailty. And from other of their writings we learn that this Deliverer has in fact come and has wrought our salvation by uniting in himself the low estate of man and the holiness of God, insomuch that from the first of these there springs forth a fountain of merit and of grace.

True or false, this teaching fits in with singular exactness to the problem of man's present condition.

By the opposition between grace and nature, it accounts for both the greatness and the misery of man; and to such as are seeking the remedy for this state of spiritual conflict it offers the all-powerful grace of the Creator himself.

This of course is not enough in itself to establish the truth of the christian faith. This religion is put before us as an hypothesis which satisfies the mind. But a convenient hypothesis is not necessarily a reality. The subtle matter of Descartes may account for certain phenomena, but it is none the less a fiction. Special research has been needed to convert Torricelli's hypothesis into an established fact. Nor can we risk our life upon an hypothesis; we want to know whether this religion, which we grant to be a plausible explanation of our condition, is, besides, strictly true. This being so we have to take account not only of its relation to ourselves, but also of the proofs of veracity it is able to offer.

It tells us of a union between the human and divine in one and the same being. This passes our intellectual credence, and can only be a matter of faith; so that we cannot believe in it save by the intervention of supernatural grace. But it is conceivable that our efforts to believe may be the manifestation, fore-ordained of God, of the very work of grace upon us. So then we are to act as though we had of ourselves the power to turn to God; we are to seek him with all our might, becoming conscious in our inmost heart of the feeling which is to accompany our efforts.

Faith is the soul's assent to the truths contained in holy scripture. It has its motives both in ourselves and in the revealed truths; and these motives mingle and interpenetrate in such a way that they act and react upon each other; and our spiritual life becomes a help to the understanding of the scriptures and our understanding of the scriptures aids the development of our spiritual life.

If, distinguishing for the sake of argument between things which are in reality inseparable, we consider in the first place the progress of our spiritual life, we notice that in order to pass on from knowledge to faith we have three means at our disposal: reason, habit, and inspiration.

Although reason does not prove those things which can only be matters of faith, yet she does remove difficulties, she does smooth the way for the exercise of faith. First of all she proves that, so far as she is concerned, there are just as good arguments for as against, and therefore the whole matter may be decided on the plane of faith without doing any violence to reason. Nor is this all. When hard pressed, and challenged to carry her arguments to their final issue, she brings forward one unanswerable argument for deciding in favour of religion. There is a branch of mathematics called the rule of partis. On applying the principles of this computation to the question of the existence of God, we find it strictly demonstrated that we must solve it in the affirmative.

Suppose human reason to be in a state of uncertainty on the question of the existence of God. It is, as it were, a game of pitch and toss. I say that reason must lay the odds for the existence of God.

And, believe me, we are bound to take these odds

one way or the other. We have no choice in the matter. We are living; and every one of our actions implies a decision touching our destiny. It is evident that we should act in a different manner according as God exists or does not exist. On which side shall we wager? We must wager that God exists.

In every wager, there are two things to be considered: the number of the chances, and the importance of the gain or loss. Our reason for choosing this or that side is expressed by the product of these two factors. Now to suppose God is to suppose an infinite good. Let us make the chances for the existence of God as small as you please, say, for example, equal to 1. The contention that God exists shall be represented by $1 \times \infty$. Now opposite the blessedness which God can bestow upon us let us put the good things of this world, and let us grant them as great as you please. They can only form a finite quantity, which we will call a. Again, let us make as numerous as you please the chances that God is not, and that the world exists by itself. This number is finite, since there is one chance that God exists. The contention that God does not exist will thus be represented by the expression $n \times a$. Now this product is necessarily smaller than the first, into which the infinite enters as a factor. Therefore I must wager that God exists.

This argument is conclusive. But it remains only an argument, and while compelling the understanding leaves the heart untouched. And it is the heart's allegiance to which the religion of Christ lays claim. How is the affirmation of the existence of God to be passed on from the intellect to the heart?

The great obstacle to this lies in the passions, in the love of pleasure; and of these you must rid yourself. Once give me faith, you answer, and I shall soon give up my pleasures. But I say to you: Once give up your pleasures and you will soon have faith. It lies with you to take the first step. You can at least put forth an effort and test the truth of my words.

In the attempt to make the head rule the heart, we have one powerful ally; to wit, habit. This it is which makes our likes and dislikes and can also unmake them. It brings an influence from without to bear upon our inward inclinations. You then who would fain believe but cannot, you in whom reason points on to faith while you are conscious that the heart holds back; -act as though you did believe; use holy water; have masses said. That will of itself weaken your passions, it will lead you to believe, it will make you become a fool.—That is what I am of .- And wherefore? What have you to lose? Your boasted wisdom is nothing but a lie. Only by a return to that childlike freshness and simplicity which man in his folly sets at naught, can you worthily prepare yourself to receive the impress of the truth.

Such is the part played by habit. But it, too, is insufficient. One thing only produces perfect faith; that is, inspiration. If argument and habit have any value it is because they announce or rather go along-side the work of grace, making it known and understood by the consciousness. By means of self-humiliation to lay oneself open to those inspirations which alone can work out the true and saving result; that is the supreme effort of man in his search after faith.

In proportion as his spiritual state grows purer, so does the truth unfold itself before his eyes.

The book which contains the truth is the Bible. In reading this book I am at once struck with its marks of authenticity. I notice particularly that it has been handed down to us by the Jews, while yet it depicts them as faithless, and threatens them with terrible chastisements. Now what likelihood is there that they would have preserved such a book had it not been authentic? The more I dwell upon the story the Bible has to tell the more remarkable I find it. It has a unity, a sequence, a reasonableness which are extraordinary. And what it places before us is, side by side with a ceremonial religion, another religion which is wholly spiritual, founded upon the love of God and coming triumphantly through every sort of vicissitude.

Having thought out the matter thus far, my next wish is to find that the religion of Christ, which forms the final stage of this story, can be demonstrated as true. Now I find proofs of truth in the numerous miracles, incontestably genuine, that are related in the Bible; in those obviously figurative passages in which the book abounds, and which exactly apply to Jesus Christ; and lastly, in those very distinct prophecies of which the history of Jesus Christ was the literal fulfilment.

Such is the first impression made upon me by the reading of the scriptures. But I cannot hide from myself the fact that a closer examination gives rise to enormous difficulties. If there are genuine miracles, there are also pretended ones; there are some which, taken by themselves, tend to alienate the human spirit

from God and from Christ. If there are some figures of speech that are clear and convincing, there are others that seem somewhat strained and can only be accepted as proofs by those already persuaded. Again, many of the prophecies are unintelligible, or would at least seem to have found no sort of fulfilment. This book abounds in inconsistencies. It makes God both absent and present; it is of the flesh and also of the spirit; it is at the same time clear and obscure, ordered and confused, sublime and trivial. Who shall smooth away these contradictions? Who shall bring order into this chaos?

The Bible is, on these points, its own interpreter. Isaiah teaches us that God of set purpose blinds some and makes others to see, and that his dealings are so planned as to produce this two-fold result. God speaks of himself as a God who hideth himself. To the elect alone is it given to discern him behind the veil with which he is covered. This is a sufficient solution from the logical point of view; but it plunges us as it were into a yawning gulf of thought. How can God take delight in deceiving and ruining his creatures?

Had man within him nothing higher than his reason he would find these difficulties unsurmountable. But there is an illumination of the heart which is not at that of the reason. With the heart man perceives that there would be no merit in allowing himself to be ruled by rational evidence; whereas, in yielding himself to that against which both reason and nature rebel, he is making an effort and a sacrifice and thereby fitting himself for a perfection transcending that of the sense and the reason. And thus is accomplished within the

soul the mystery of the act of faith. The need of believing, which had its first awakening in the will, here meets its desired object; and that object, uniting itself to the will, realises there the faith it was following after. He who creates this higher life in man is Jesus Christ. He it is whom man has ever been seeking through all his restless cravings after earthly good. He it is who from henceforth shall be the spring of his thoughts and affections. Jesus Christ is the corner stone of religion.

Jesus Christ is the most complete expression of the contradiction which is to be found in every man. Being God, he is great; yea, greatness itself. Yet at the same time he is veritably man, and the humblest and least among men. He is a workman, poor, defenceless and obscure. On him is laid the burden of the transgressions of all the sons of Adam, and the endurance of the most cruel and ignominious torture. In him are literally met together the very height of greatness and the very depth of abasement.

His work is to turn what was once a hindrance into a help, to make strength to arise out of weakness, and evil to bring forth good. Jesus gives himself for us, and his sacrifice has a peculiar virtue. A sacrifice on the part of man, who has a debt to pay, can be nothing but expiatory. That of the lamb without spot is meritorious, with a merit of all-powerful efficacy. Everything which proceeds from man himself leaves his inner nature unchanged. In his present condition his will is enthralled by his fallen nature, and has no independent power. But the merits of Jesus, infinite as the love which gave them birth, cut at the very root

of sin. So that in him, evil as suffering may be said to triumph over evil as sinfulness; and while all suffering is not redemptive, but has only a depressing influence when merely endured, the sufferings of Jesus, undergone voluntarily and in accordance with the Father's holy will, are invested with a divine virtue.

And as he was made whole, even so through him may we also be made whole. Jesus is the way, the truth, and the life. He is the way, inasmuch as he is a kind of counterpart of ourselves, in whom the two extremes of our nature are united and carried to an infinite degree. He is the truth, inasmuch as he offers to us such revelation upon divine and human things as could come to us from no other source. The cross whereby God chastens and also pardons, and whereby humiliation is changed into glory, teaches us that God is at the same time just and merciful, resisting the proud and giving grace unto the humble. The cross saves us alike from the stoic pride which would make itself equal with God and from the despair which overwhelms the atheist as he gazes into infinite nothingness. And He is the life. Not that his action takes the place of our own; the work of our regeneration cannot be carried on without us. Yet because of our assurance of the divine mercy we are the more ready to act, having some cause for hoping that our efforts may not be altogether in vain.

It is certain that we can of ourselves do nothing which will avail for our salvation. But Jesus Christ is rightly called the second Adam; and even as we have all sinned in the first Adam, in whom we all virtually existed and from whose desires all the desires of our

fallen nature have sprung, even so we can all, if we will, live in the second Adam and be clothed upon with his merits. In order to bring this about we must needs be partakers in all that befalls him, suffering together with him, mingling our prayers with his prayers, our love with his love; we must become members of Jesus Christ. To be a member is to have neither life nor being, nor movement save by the suggestion and on behalf of the body to which we belong. Love then is the means by which we are enabled to live in Jesus Christ and to be born again with him. He is in very deed the God of humanity.

United to Jesus Christ, we have a new outlook upon things, an outlook our natural faculties could never have given us. For by these we endeavour to trace effects to their cause, and continually seek that which, as we pursue it, evermore eludes us; so that we go from contradiction to contradiction. But in Jesus Christ we are starting from the vital source of things, and that which when looked at from the outside was irreconcilable contradiction, is shown to be highest logic and perfect harmony.

To begin with, the Bible, the miracles, the prophecies, the figures of spiritual things, which seemed to our astonished eyes calculated to blind some and enlighten others, now take on a new meaning. Those whom God blinds have actually willed, in the pride and unregeneracy of their hearts, to believe in nothing but their own reason and to deny everything that passes their comprehension. God leaves them to their blindness. Those whom he enlightens are they who seek him in all sincerity and submit themselves unto

the truth. To yield oneself to God, the source of every good deed, is already to possess him. Speaking after the manner of men, then, we may say it depends upon ourselves whether we are of those who are made to see or of those who are blinded. It is as though we could of ourselves obtain the favour of God. To the eye of faith God's act does not in any way lessen man's act; it brings it to fruition.

Under divine enlightenment, we find fresh subjects of belief in the very difficulties the Bible presented to our reason. Certain prophecies have apparently never been fulfilled; but it was we who interpreted them wrongly, reading into them a material meaning instead of the spiritual one they were intended to convey. Jews looked for a Messiah, mighty as the world accounts might, because they were carnally minded. The christian knows that the order of material greatness is as nothing before the order of divine love; and he understands the kingship of the Messiah in the sense of this moral greatness. Just so with the figurative language of the Bible and with the miracles. The figures are meant to be interpreted in spirit and in truth, yet leave no room whatever for arbitrary explanation. Those miracles which serve as proofs of divine truth should be distinguished from others; for there are false miracles, of no meaning or value. Sometimes the miracles interpret the doctrine, sometimes the doctrine interprets the miracles. Here likewise is the love of God our necessary and infallible guide, setting bounds to our reason which, if left to itself, wanders far astray when it meddles with spiritual things.

Henceforth not only is the meaning of the Bible made clear to man, but he begins to understand afresh his own nature; and whereas his unaided reason had been able to see there nothing but contradictions and feebleness, he is now aware alike of the order that lies at the root of his nature and of the cause and cure of the disorder that nevertheless reigns within it.

Man has three faculties: heart or will, reason, the senses. If these faculties are at present warring with each other it is because their primal relation has been disturbed.

The heart, following its actual bent, inclines towards self as its supreme end. This tendency is the effect of sin, by which self has been preferred before God. But when regenerated by grace, the heart tears itself from its idol and turns to the living God; then, having submitted itself, it is in a position to rule and direct our every faculty.

The senses, which we constitute our judges in things divine, and by whose guidance we undertake to solve the problem of our destiny, really have to do solely with the material world created by God. They take cognisance of physical facts, just as the heart, apart from the senses, takes cognisance of moral verities and first principles; both sure witnesses in their own domain; in fact, the only ones to whom competence and authority belong.

Between these two intuitive forces stands our reason, like a servant between two masters. The philosophers were mistaken when they invested it with principles of its own and the power to be self-sufficing. All the

principles these misleading teachers imagine that the find in the reason belong in reality either to the sense or to the heart, both being under sin. Reason has n leading principles of its own. Its legitimat function is to come to the aid of the senses in matter of physical knowledge, and to join in the action of grace upon the will in matters of divine knowledge Between natural science and religion there is no place at all for philosophy; this science, falsely so called, if but the last effort of human pride to make itself equal with God and to render the cross of none effect.

And thus there are within us three orders of being that of the body, that of the mind, and that of the lov of God; and the infinite distance which separates th first from the second is no more than a symbol of the infinitely greater distance which separates the second from the third. When the relations of these three to each other are known and observed, then may peace and harmony be once more restored to the sou of man.

As faith in Jesus Christ gives us a clearer vision of the nature of religion and of our own being, so likewish does it regulate our conduct. The one object worthy of man's desire is the possession of the divine favour Now there is no formula of incantation by which God can be made to bestow it upon us. It is the mortal error of the pagans and such christians as think after the manner of pagans that they make God subject to the actions of men. Yet on the other hand it will not do to believe, with certain christians imbued with the opposite error, that God saves us without our having any participation in the work; that our acts are

matter of indifference; that Jesus Christ purely and simply takes our place before his father's tribunal. The truth is that the work of grace, while altogether divine in its origin, must needs be accompanied by human effort. This consists in taking part in the work of salvation which is accomplished by divine mercy; in living in Jesus Christ, as we have aforetime lived in Adam. To live in Jesus Christ is to be permitted to enter into his glory by being made partakers of his sufferings. He has not exempted us from suffering; for he, being our example, has himself suffered; but he has given us the means of making our sufferings fruitful.

The christian life is thus a life of self-mortification. The suffering we inflict upon ourselves in communion of spirit with Jesus Christ is our part in the work of our salvation, and our way of labouring to weaken within us the three-fold lust of the flesh, the mind and the will. Through its means we set our heart free from the unworthy and perishable objects which put it to shame, in order that the love of God may fill it in their stead. And in truth the love of God does fill it, according as it grows in purity. For was it not under this very influence that it struggled and mortified itself? Suffering more and more meekly accepted is the sign of spiritual regeneration.

Love to God, the supreme duty of man, which alone gives meaning to all the others, and which yet lies infinitely out of reach of the powers of our fallen nature, is realised by the motions of God within us, and calls us even in this present life to be partakers of the divine life. Yet never could we of our own

selves have yielded to it and set ourselves free from struggle and trial. Even as nature is but an image of grace, so grace itself does but shadow forth the glory which is to come. The life of the christian is the soul's progress, ever more and more free and joyous, towards a goal that lies upon the other side of death.

CHAPTER IX.

PASCAL AND HIS INFLUENCE ON SUCCEEDING THOUGHT.

Pascal's countenance, so far as we can judge from his death mask and one or two portraits, was singularly expressive of intellectual power, of reflection, of quick perception, of subtle irony, of decision, sincerity and spirituality. You notice at once the delicately formed curve of the lips and the pronounced arch of the nose; but still more do the eyes arrest you with their searching glance at once calm and commanding, and you know not whether to be attracted by the fine genius that looks out from them or awed by their expression of aloofness.

But however remarkable this physiognomy, it does but feebly express an inner life of extraordinary richness and intensity. Pascal united in himself singularly diverse qualities; a gift for the sciences depending on observation and on reasoning, together with a most penetrating sense of the things of the heart and the soul; the craving to know and the craving to love; a drawing towards the inward life, and an ardent desire to influence other men; childlikeness and ambition; simplicity and ability; power of abstract thought, and imagination; passion and will-power; the spontaneity of a generous nature, and inclination for work, struggle and effort. One of the dominant traits of his character was his fancy to excel in everything. This straining after perfection led him to allow no temporising, no concession, no middle course. In all things he sought the absolute. The very qualities which seemed the most difficult of reconcilement, he pushed to their logical conclusion and undertook to establish a basis of unity between them.

He passed through several mental phases, determined by his native genius, by circumstances and by the force of his will.

Brought up by his father in the spirit of compromise between temporal and spiritual interests, and finding out for himself later that the religion of Christ allows man to have no other object than God alone, he at once embraced this manner of thinking, finding in it the completeness and exactness for which he craved. His heart however was not yet rid of its earthly attachments, and, his intellect having played a larger part in his conversion than did his heart, he oscillated between the love of God and the love of science. Next. living in the whirl of society, he was captivated by it, and took knowledge of the depth, the beauty and the dignity of human nature. He found both by observation and experience that the essence of man's nature is passion, and that the root of passion is the need to possess some object which shall be great enough to fill the emptiness of the human heart. Henceforth, he was to seek in man's own nature the basis of everything man is required to believe. Now with all his newlydeveloped appreciation of human nature, he could not help seeing that it was rent by internal discord, that its powers were hopelessly unequal to its destiny. His mind became disturbed and unhappy; until presently faith awoke within him, faith in a God of love as the

one only object of the soul; and herein he found a remedy for his soul sickness, not merely theoretical, but practical and efficacious. By this means he recovered his peace and joy of heart. This time his conversion was definitive, because it was no longer a mere intellectual assent but a genuine renewal of heart and will. From this time forth Pascal's resolve was taken. He would consecrate to God the whole of his powers; he would set his face against that mingling of the worldly with the christian spirit, that sharing of the soul's allegiance between God and self which is a compact impossible of fulfilment; he would labour for his own spiritual perfecting and for the conversion of other men; and even science he would value only in so far as it could be used in the service of religion.

The form in which Pascal clothed his ideas in the books he was moved to write was the natural outcome of the object he had in view. His one effort was to make known the inward work of grace which forces the unregenerate man out of his condition of pride or indifference and summons him to that love which involves the giving up of self. This two-fold effect of grace Pascal's diction is fitted to convey. On the one hand, his writings abound in vivid descriptions, violent contrasts, even exaggerated expressions such as would be likely to stir the imagination and move the apathy of the unregenerate man. On the other hand, he has language at his command able to search and win the heart, inspire it with confidence and open it out to faith, love and joy. And from the first page of his discourse to the last there was to be unfolded a chain of inflexible reasoning, this being the human means

whereby we uplift ourselves from what is natural to what is divine, and pass on from vain knowledge to faith.

In Pascal are united the scholar, the christian and the man. Each one of these is complete, each a part of the others, and the three are but one. What he rejects is philosophy; that unnatural coupling together of that which is above nature and a capacity for knowledge whose scope is limited to that which pertains to nature. And one can only make a philosopher of him by wresting his words and treating his religious doctrines as being merely rationalistic doctrines presented in a symbolic manner; a view contrary to his own belief, who in all sincerity made christianity the pivot of his thought and life. To him christianity meant this: that when once a man is alive in Jesus Christ he harbours no thought that does not tend towards God and, by the same token, proceed from God.

Pascal lived only thirty-nine years. He wrote but one work,—the *Petites Lettres (Provinciales)* and a few fragments, the greater number of which are merely rough notes. Nevertheless he has left so deep a mark that most great thinkers since his time, in French-speaking countries at least, have been either saturated with his thought or avowedly antagonistic to him.

As a writer he produced one of the most exquisite forms of French prose, a diction still rich in words of older usage, forcible and colloquial; in concrete expressions and bold imagery; yet at the same time subdued, simple, precise and clear; a syntax at once flexible and strictly logical; a very free construction which, while

allowing the fine measured roll of the Latin period, also breaks up or knits together the sentences, fills them out or condenses them, with an ease and an art that are wholly French. The seventeenth century writers looked in vain to this style with all its freshness of perfection as their model; for no one of them, nay, not even the greatest, could boast of that particular combination of qualities which came so naturally to Pascal. Save in the case of La Fontaine, reason was to be in the ascendancy, and the heart and the imagination were to take a secondary place And among the various forms into which French prose has developed later than the seventeenth century, from Voltaire and Rousseau down to Chateaubriand and Victor Hugo, there are scarcely any of which the germs are not to be found in the writings of Pascal.

But it is not only as a stylist that Pascal exercised a lasting influence. His personality and his ideas were also destined to outlive him and to have a life and a future of their own.

He afforded a striking example of the possibility of reconciling the highest degree of reasoning power with the most childlike and humble faith. He was of the number of those who contributed most to the bringing into favour of that harmony between science and religion which was one of the features of the seventeenth century.

His influence upon his own age was of a more special kind. To the dangers which beset the christian church from formidable enemies within her pale, he opposed, together with his friends at Port Royal, but after a more living and less official manner, the restitution of christianity to the purity and strictness of its earlier days. Now the *Provinciales*, in which he pleaded for love to God as the rule of life, proved no mere social success. Themselves condemned by Rome on the score of dogma, they brought about the condemnation, by the public conscience and the voice of the church, of the relaxed code of morals of the Jesuits, and contributed to the suppression of the order in 1764.

Again, the teaching of the Pensées touching the natural corruption of man and his regeneration by divine grace; touching the misery of man without God and the greatness of man with God; touching the close accord between man's part and God's part in the work of salvation, runs more or less through all the christian teaching of the seventeenth century, and is a part of every system of belief, belonging to that time, which has its root in religion. This applies to the teachings of Bossuet and Bourdaloue; to the views of Racine, Boileau and La Bruyère; to the systems of Malebranche, Spinoza and Leibnitz. Nevertheless, it would seem that the precise relation laid down by Pascal between christianity and human nature was not fully understood and appreciated by an age dominated, in spite of itself, by the dualistic spirit of cartesianism.

Reason, however, not content with the relative independence accorded to it by the seventeenth century, laid claim, under the philosophers of the eighteenth, to absolute independence; and now Pascal was regarded as a pernicious example, whose influence it was important to destroy. Already had Leibnitz, while expressing the greatest admiration for Pascal as a

scholar, reproached him as a christian for having had his mind full of prejudices in favour of Rome; and insinuated that his intellect had early become deranged by reason of the excessive austerities he had practised. Voltaire, with narrower vision, refused to see anything in Pascal's religious ideas but the effect of the repression exercised upon his genius by the spirit of his time. A sublime madman, born a century too soon: thus does he characterise him. And he lashes him with his sarcasms, accusing him of having blackened human nature, and of having been fool enough to teach man that he was intended to be something better than man. Condorcet's introduction to his famous edition of the Pensées, published in 1776, is conceived in the same spirit. He alternately pities and chides Pascal for having allowed himself to be the tool of superstition. Such is likewise the point of view of André Chénier, when with biting eloquence he condemns this Pascal who, as he says, spent so much talent and genius in railing at the sound sense which investigates, and in rebelling against doubt; a proud and arrogant man under all his show of humility, indignant that any mortal should feel at liberty to shake off a yoke which he himself elected to wear.

The better to explain how so great a genius had come to make so lamentable a failure, these writers got into the habit of regarding him as not quite sane. Condorcet had mentioned an amulet belonging to Pascal, thus designating the memento found in his waistcoat after his death. Voltaire had revived the legend of the abyss which Pascal was supposed to have thought he saw beside his chair during the last year of

his life. The Recueil d'Utrecht told of a strange accident said to have befallen Pascal on the Pont de Neuilly, and to have excited his imagination. Through these tales and the comments upon them, it came to be believed that Pascal had been subject to hallucinations and, at least at intervals, out of his mind; and the time came when a distinguished philosopher, who was also a doctor of medicine, Lélut, gravely argued out this theory, in a work entitled: L'Amulette de Pascal, pour servir à l'histoire des hallucinations (The Amulet of Pascal: A Contribution to the History of Hallucinations), 1846.

By the middle of the eighteenth century, however, came Rousseau, who set up feeling in opposition to reason, and constructed a history of human society which was no other than a philosophical presentation of the religious history of the soul, passing successively through the stages of unfallen nature, fallen nature, and regenerated nature. Those who were led away by the ideas of Rousseau read Pascal with another eye than did Voltaire. They saw in him a mystic, proving to man that he would be given over to pyrrhonism were it not for his reason; yet revealing to him, in the secret transports of his heart, the source of a faith and an assurance which cannot be moved. Thus it is that Jacobi, who was destined to be one of the most thoroughgoing representatives of the philosophy of feeling, was a devoted student of Pascal as of Rousseau, and took for his motto the famous maxim: "The heart has its own reasons, of which the reason knows nothing." As was the case with Jacobi, most of those who have turned to the immediate inspirations of feeling as a refuge from the uncertainties of reason, have been either the disciples or the admirers of Pascal.

With Chateaubriand, Pascal becomes once more, as in the seventeenth century, the great thinker, who was at the same time a great believer; and it is to his very faith, according to the author of the Génie du Christianisme, that he owes his literary genius. Pascal the sophist, the creation of Voltaire's imagination, would have been infinitely beneath Pascal the christian, who, just as he was, offers us a living and sovereign proof of the excellence of christianity.

And yet this same Chateaubriand, after having expressed himself thus, goes on at once to insinuate that Pascal's reason, which would otherwise have led him to the extreme of negation, was kept in check and reduced to silence by his faith. And later he was to pronounce expressly for a sceptical Pascal, who turned christian sore against his will, and in whom the unbeliever died hard. This is properly the Pascal of the romancers. He personifies, in wondrously tragic fashion, the conflict between heart and intellect. "This is the Pascal that I love," says Chateaubriand; "I love him when, falling upon his knees and covering his face with his hands, he cries out: 'I believe,' almost at the very moment when he has let fall other utterances that belie his words."

In 1823, Villemain, in his Discours et Mélanges (Essays and Miscellanies), asserted that this powerful intellect had fallen back upon superstitious practices as a relief from the torments of doubt. Seven years later, in 1830, Victor Cousin brought to his study of the manuscript of the Pensées a preconceived idea of

Pascal's scepticism, and, as a consequence, found it there. Hence he presents to his contemporaries, in 1842, a Pascal as much the victim of doubt as of disease, with whom faith was a half-conquered unbelief. This idea of Pascal is rife among us to-day, as witness the fine lines of Mme. Ackermann, or those of Sully Prudhomme:

"La foi n'est, dans Pascal, qu'une agonie étrange;" (For Pascal, faith was nothing but a strange agony) or of Jules Lemaître: "Upon the grave in which you

buried your reason, your fame, your genius, you set up a cross;

Mais sous l'entassement des ruines vivantes L'abîme se rouvrait, et, pleine d'épouvantes, La croix du Rédempteur tremblait comme un roseau."

(But though buried they were not dead; with the stirrings of their life they broke open the tomb, and the cross of the Redeemer shuddered and trembled like a reed.)

At the very time when Victor Cousin, following in the wake of other critics, was discovering a sceptical Pascal, the profoundly spiritual thinker, Alexandre Vinet, for whom religion consisted in experiencing the workings of God within the soul, placed the principle of Pascal's doctrine in a pessimistic view of man's nature, and found his method to consist in looking to God rather than to man, and in receiving enlightenment through the heart. He found in him religion such as he conceived it to be—that is to say, as a matter of spiritual and individual experience. And when

Faugère's edition appeared, published direct from the manuscript, he greeted it in these terms: "Pascal is restored to us, not Pascal the sceptic, but the Pascal we used to know, the Pascal of assured convictions, full of joy and fervour."

While with respect to the relation between reason and faith each one read more or less into Pascal's writings the view that fell in with his own ideas on the subject, the Pascal of the Provinciales remained, at the same time the incomparable writer and the adversary par excellence of the Jesuit code of morality. In vain was the order, suppressed in 1764, re-established in 1814. In vain did Saint Alphonse de Liguori, the founder of the Institute of the Redemptorists, restore probabilism-granted a sufficient explanation-in cases of adultery, perjury, and homicide; the public conscience never reversed the judgment of Pascal. And the maxim which makes the end justify the means; the cunning duplicity which allows lying under the semblance of truth; the casuistry which reduces to rules that which does not admit of being so treated, and kills the spirit with the letter; the complacence which calls evil good, or at least declares it to be legitimate under pretext that it is distasteful to men to break loose from it; the formalism which exempts men from the duty of love to God and inward piety; religion as the instrument of authority; the use of cunning and policy as means whereby to labour for the establishing of the kingdom of God; -all these have remained objects of aversion to devout and sensitive souls. True, the Provinciales have been subjected to a flood of criticism on points of detail. The correctness of such and such a quotation, the interpretation of some theological formula, the attributing to the whole Order of the assertions of certain of its members—all these have been called in question. And no doubt had Pascal been more of a theologian these matters would have been open to discussion. But that which he condemned still stands condemned, not only in heaven but even upon earth.

Nowadays the spirit of analysis prevails; and we are less inclined to look to Pascal for weapons or arguments in favour of one doctrine or another, than to study him with an open-mind, so as to gain some just idea of what he really and truly was. This kind of unbiassed investigation began with Sainte Beuve and Ernest Havet, the latter of whom published his first edition of the Pensées in 1852. Sainte Beuve. however, with all the learning and literary acumen he brought to bear upon the subject, with all his interest in it, and his openness of mind, is still haunted by the romantic idea of a Pascal whose moment of clearest faith was also the moment of his darkest doubt. Ernest Havet, for his part, whose exegesis is most thorough, exact and scholarly, forms his judgment of Pascal from the point of view of an outsider, looking at him from his own rationalistic standpoint. Since the recent labours of Edouard Droz, Ravaisson, Sully Prudhomme, Rauh, Michaut, Brunschvicg, Victor Giraud, amongst others, it may be said that Pascal, such as he was to his own consciousness and such as his friends knew him, has definitely replaced the personality, to a certain extent the invention of his biographers, who figured so long under his name.

Henceforth the writer of the *Provinciales* and the writer of the *Pensées*, the eminent scholar and the eminent christian, the man of social parts and the friend of Port Royal, the dialectician and the believer, no longer clash with one another. Considered from the strictly historical point of view, Pascal appears as a man of rich genius, with a craving for breadth and perfection, whose powers in the plenitude of their strength were devoted to the defence of the faith and to the love of God.

Nor does this veritable Pascal seem to be any less fitted for influence than he who was the creation of men's fancy.

After having long been satisfied with such systems of apology as rest mainly upon pure reason and upon authority, the catholic church witnessed within its own pale some remarkable efforts to seek the primary motives of belief no longer in the objects of faith but in man, in human nature. In accordance with this method, the primary condition of all religious proof would be the awakening within the human soul of the desire to lay hold upon God, a desire which does in very deed lie deep within us, but is overlaid by the life of the flesh. It would become a question then of setting free in human nature the desire for spiritual life. Now it is in a measure due to the influence of Pascal's writings, read and pondered in all singleness of heart, that this branch of christian apologetics has been developed.

Nor is this all; to more than one christian, dwelling in an atmosphere of worldly ambition, the writer of the Mystère de Jésus comes as a reminder that the whole of religion is embraced in the love of God, and that he who does not take God for his beginning cannot have him for his end. And he becomes a source of spiritual strength to those generous souls who share with him the desire that christianity may be in themselves and others a living thing, and not a formula or the catchword of a party.

All christians, all men, in fact, who can enter into the saying of the apostle: "God is love," to whatever church belonging, find in Pascal a brother, in heart communion with whom they grow in goodness and piety.

Pascal's writings exercise a strong influence besides upon those who do not share his particular form of religious belief. His delineations of human nature are too real and living, the struggles that went on within his own breast find too sure an echo in the experiences of every earnest soul, to allow of the objects of his faith being limited to their literal and material sense. Nature and grace, the love of the flesh and the love of God: these stand for matter and spirit, blind impulse and voluntary effort, egoism and self-sacrifice, passion and true liberty. How turn a deaf ear to teaching so fine and invigorating, which tells us that an earnest desire on our part to get rid of this self of ours, faulty and self-seeking, is at once, by an inward and effectual grace, changed into the actual and living power which is needed for the transforming of this self and for inspiring it with goodness and love? How can this so profound sense of the misery and the greatness of man fail to arrest our attention? Man is but a sorry creature in that when left to the bent of

DEATH MASK OF BLAISE PASCAL.







his nature and to the law of inertia, when ceasing to will, to struggle, to suffer, he sinks lower and lower, and declines from the dignity proper to man. But he is great, in that he is capable of uplifting himself continually above the level of the brutes and even above himself, and inasmuch as the God whose it is to exalt him, is nigh him, is within him, as the very essence of his being. Only let him put far from him the comfortable doctrine which would allow worthy ends to be attained by dishonourable means; as though vices, skilfully handled, could of themselves produce virtue. By good alone can we follow good and fight against evil; love alone can conquer hate and make ready the reign of love.

Not in any purely outward revelation then, but in his own nature, should man seek the springs of his knowledge, his rule of life, his religious belief. But the self that first of all confronts him, and that is full of restlessness and inconsistency, must be to him only as a mask that needs to be broken before he can see his real self. And by an unyielding struggle against his self-seeking instincts he is to create and develop within himself, until it becomes a second nature, the power to love and follow that which is worthy.

The doctrine of good being produced from good is too much in harmony with the aspirations of the human soul to meet with any opposition, at least from men's consciences if not from their intellects. But there is one point in Pascal's life and teaching which does in some quarters provoke astonishment or blame; that is, his devotion to asceticism. This devotion is not separable from his personality and his beliefs; it

is an integral part of them. Pascal looks upon self-mortification as being our share in the struggle against our fallen nature. It is the distinctively human work which must needs accompany and make manifest the divine work in the task of our salvation.

To reject asceticism at every point would be to maintain that all parts of our nature have an equal right to existence and development, a theory never admitted by any system of morality. Socrates made temperance the first condition of knowledge and virtue. Now the more exalted the aim that a man sets before himself the greater is the opposition of his natural love of ease, and the more he is bound to fight against and subdue himself.

Is it certain however that we ought to endeavour not merely to moderate, but to annihilate, the lower instincts of our nature? Assuredly for him who would attain sanctity it is the path of greater safety. Yet there are some dangers that duty even calls us to face; and, so far from escaping out of our nature, ought we not rather to bend it to the accomplishment of that which is good? Besides, is nature so utterly rebellious? Pascal himself declared that there is grandeur in our nature as well as baseness. The truth is, the one cannot be separated from the other; and the same instinct that degrades us when we passively yield to it becomes our stay and support when we use it with intelligence and freedom. Visible things are not only veils which serve to hide God, they are likewise signs which reveal him; and this God, from whom are all things, is to be sought not only in himself, as Pascal would have it, but also through the medium of his works and the

symbolism of nature. A task more humble, and incapable of satisfying an impetuous soul which could not rest content with anything short of the highest; yet the only one it would seem for which as yet humanity is able. Nothingness and infinitude are for us but two imaginary limits. "To quit the mean between these two," Pascal himself avowed, "is to leave the allotted place of humanity: the greatness of the human soul consists in being able to preserve this mean."



NOTES.

Page 1, line 4.

Maître des requêtes: The office of maître des requêtes was developed by Richelieu into that of intendant de la généralité. (See p. 10.) The "King's Council," or "Council of State," was entirely reconstituted by him; and, whereas in the sixteenth century it had been composed almost entirely of ambassadors, princes, members of the military nobility, and ecclesiastics, with scarcely any magistrates, under Richelieu the judicial element predominated and the military and ecclesiastical were almost absent. It was the age of great juris-consults, and important changes took place in law and administration. The tendency of the changes made by Richelieu was towards centralisation. Part of his scheme consisted in lessening the power of the parlements and increasing the power of the intendants, who, as direct representatives of the central government, administered the financial affairs of the généralités (districts) under their charge. The parlements, the highest courts of France, resented this re-distribution of authority. Many young men of high birth had been accustomed to find in them an opportunity of entering a public career, and the "counsellors" (see p.p. 10, 18) formed a special and privileged class of French nobles.

Page 1, line 17.

Cour des aides: The Cour des aides was one of the great fiscal courts of France. It dealt with cases relating to the payment of taxes, tolls, &c. It was instituted in 1355 and made into a sovereign court in 1426. It adjudged which of the civil and ecclesiastical titles should involve exemption from taxation. It had power to decide in cases of contracts between farmers, &c. It was also a court of appeal from inferior courts on financial decisions.

Page 2, line 16.

Antoine Arnauld (1560—1619), the father of so many remarkable children, was born in Paris; but his family originally came from Provence. He was a distinguished member of the bar, and renounced several public offices of importance in order to devote himself to this his chosen career. His eloquence and uprightness were proverbial.

The University of Paris, which did its utmost to prevent the establishment of the Society of Jesus in France, and, having failed in this, stoutly refused to admit any of its members into its own body, upon diverse occasions besought the parlement of Paris to order the expulsion of the Jesuits. It was on one of these occasions, on July 12, 1594, that the famous advocate delivered one of his greatest speeches. He pleaded the cause of the university with such force and brilliance that the Jesuits never forgave him. Again in 1601 he addressed an appeal to the king against

their recall, they having been banished on account of the attempted assassination of the king by their disciple, Jean Châtel.

This was the original grievance of the Jesuits against the Arnauld family, and the prime cause of their perpetual hostility to Port Royal, since the monastery numbered among its members not only Mme. Arnauld herself, but also six of her daughters and five granddaughters who were nuns there, besides several of her sons and grandsons who were among the recluses.

Page 5, line 7.

Le Pailleur is said to have been one of the best of good fellows, and highly talented in more than one direction, being at the same time a musician, a man of letters and a learned mathematician. He was a poor man, and being passionately devoted to study used to sell his books when he had learnt all he could from them and then buy others with the proceeds. His lively and sociable disposition and his gift of song were his passport to the higher circles of society, where he was much sought after. Even the scientific gatherings at the house of Étienne Pascal had their lighter moments, when Le Pailleur enlivened the company with his jokes and songs.

Page 6, line 2.

Father Mersenne (1588—1648): Marin Mersenne, Minime, was the intimate and life-long friend of

Descartes, for whom he acted as a kind of representative or agent in Paris. The two went to the same Jesuit college at La Flèchy, but Mersenne being seven years older than Descartes they could not have had much to do with each other there. But the friendship afterwards formed, and carried on by a correspondence which only ceased at the death of one of them, may possibly have had its foundation in their college days. Mersenne went from Flèchy to the Sorbonne. On leaving there he entered the order of the Minims (hermit brothers of the holy Francesco de Paolo), taking the habit on July 19, 1611, and the vows a year later. He was ordained priest in Paris six months after Descartes settled there. The renewal of their acquaintanceship was at once useful to Descartes, inasmuch as it drew him away from the enticements of the gaming table. In 1614 Mersenne was sent by his superior to teach philosophy to the young monks of his order at Nevers, but returned later to Paris. Mahaffy says of him that he was no great thinker, but a sympathetic and stirring friend. His favourite subject was music and everything relating to sound. But he was most useful in setting other people to think and in keeping the scientific men of his day in touch with each other. M. Bertrand says that he almost took the place in his own person of what is now known as the scientific press. Though not exactly a pioneer in science himself, he was yet apt at suggesting subjects for investigation, and had an insatiable capacity for putting questions. (See note, p. 147.) He published a volume of Questions Inouies (Questions on out-of-the-way subjects). The following is among

them: "Can the laws of geometrical progression be applied to progress in morality?" (See p. 6, l. 13.) To this he answers: "It is very difficult to imitate the ways of nature and carry forward the goodness and merit of our acts by augmenting them in geometrical proportion; yet there are who do believe that the Mother of God some thus increased her merit either from the time of her birth, or from her arriving at years of discretion, or from her conception, until her death. And this would be quite easy of computation if we knew the amount of the first grace she received and the proportion of this first grace to the second; for example, if it always increased in double proportion, and say the first grace was of one degree, then the sixty-fourth would have as many degrees as there are units in the following number: 2 2 1 2 8 4 0 5 9 3 1 0 6 4 7 7 9 5 8 7878645385854553322044332411 8854673876372791135947470336 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0, for this is the sixty-fourth geometrical progression, each term of which is in double proportion to the preceding one. However this may be, we cannot make any moral progress without a perpetual augmentation of the special grace of God given to us, while we must also make efforts on our own account to grow in virtue, following the counsel of the Apocalypse: 'He that is righteous, let him be righteous still; and he that is holy, let him be holy still.' If the teachers of science or virtue can provide a method by which their disciples can profit after this manner of progression, and if monks can hit upon some way of advancing towards perfection by this

continuous progress, then they may well abide by it and make use of it as the best method of all."

Other questions are: Whether the art of flying is possible, and whether men can fly as high, as far, and as quickly as birds? Can one walk upon water without the aid of miracle or magic? How many grains of sand would the earth contain, supposing it to be entirely composed of it; and is man larger in respect of the earth than is a worm in respect of man? What are the movements of the ocean, and what their causes; and what about the squaring of the circle? Can we know whether the earth revolves daily on its axis and annually round the sun, and whether the stars are inhabited or no? Do all men act so entirely from self-interest that they can never be quite free from it? Is it true that bread and iron are lighter when cold than when hot? Can we know for a certainty at what hour, on what day, in what month, and in what year the world began, and when it will come to an end? Can we number the hairs of every man's head, and conceive of an infinite number? Is it possible for every language to be so written that all foreigners can pronounce it correctly; and ought one rather to write words as one is accustomed to pronounce them or retain the old manner of spelling which has many superfluous letters? Can mathematics be made use of in theology and physics? Do we at the present day know anything more of any art or any science than did the ancients? Is it true that sympathetic unguents and such-like have power to cure people at a distance? Is one lighter before breakfast or after breakfast? Is it possible to learn to compose music in the space of an hour or less

than an hour? Why does the magnet attract iron and why does it turn towards the pole? Why is the ebb and flow of the sea so regular? Why is sea water salt? Can there be such a thing as perpetual motion? Why does ice float on water? And how can the will follow the light of the understanding when it cannot see?

Page 6, line 4.

Giles Personne Roberval (1602-1675) was at first a professor of philosophy and later, in 1631, became royal professor of mathematics. This post he retained to the day of his death, in spite of the fact that it was thrown open for competition every three years. A man of great attainments, he was not satisfactory as a friend, and seems to have been of an unpleasant disposition. Descartes, himself so ready to make friends, says that Roberval's friendship was "a very perishable commodity." He did him the justice to believe, however, that his ungracious manners arose from his disposition and not from personal ill-will towards himself. He took what friendliness he gave him for what it was worth, without looking for more. Bertrand says of Roberval that "he was very much puffed up with his own abilities and no less unjust in depreciating the well-accredited work of other people than eager in boasting of his own. The absurdities and vanity of Roberval were often the laughing stock of the scientific world."

Page 6, line 4.

Carcavi was born at Lyons, and died in 1684. He was the friend of Fermat, Pascal and Descartes, and was held in high honour and esteem. Colbert made him curator of the Royal library, and further showed his absolute trust in him by giving him the task of putting in order the immense amount of papers belonging to Cardinal Mazarin. Carcavi demonstrated the impossibility of squaring the circle.

Page 6, line 5.

Claude Mydorge (1585-1647) was the son of wealthy parents, his father being a judge. He himself had ample means, and although educated for the law took no laborious office, so that he might be free to devote all his time to mathematics. He succeeded Vièta as the greatest reputed mathematician in France. When Descartes, on leaving college, settled in Paris and began to make friends, Mydorge was one of the first of them. There was an especial attraction between the two, and their friendship was life-long. To Mydorge alone Descartes gives the name of "discreet and faithful friend," adding that he found his conversation most helpful and his services real and practical. The enlarging of Descartes' circle of friends in Paris was greatly owing to Mydorge, who spoke his praises far and wide. Through the years 1627 and 1628 these two friends were at leisure to work together and enjoy each other's society. The

cutting of lenses by Mydorge was of the very greatest service to Descartes, both for the better understanding and explaining, as in the Dioptrique, of the nature of light, vision and refraction, and for the confirming of certain discoveries already made by him in connection with optical problems. Besides this he employed Mydorge to cut glasses parabolic, hyperbolic, oval and elliptical, which were to aid him in illustrating the nature of these curves. Under the teaching of his friend, Descartes, whose hand, says Baillet, was as unerring and delicate as his mind was subtle, became himself a skilful cutter of lenses, and undertook to train several workmen in the art. thereby ensuring that perfection in the instrument which was so important to the success of his experi-Baillet says of Mydorge that "he cared for nothing else in life but the pursuit of mathematics; and the only reproach that could be brought against this most upright and virtuous man was that he insisted on spending his money upon the making of lenses and burning glasses, on experiments and other mathematical concerns. His family complained that he had spent nearly a hundred thousand crowns in this way; and it must doubtless have annoyed them. To his mind nothing in the world was of any importance as compared with this branch of study. He left scarcely any written work, for nearly all his time had been spent in making experiments."

The following remarks of Kropotkin are interesting in this connection: "In olden times men of science, and especially those who have done most to forward the growth of natural philosophy, did not despise manual work and handicraft. Galileo made his telescopes with his own hands. Newton learned in his boyhood the art of managing tools; he exercised his young mind in contriving most ingenious machines, and when he began his researches in optics he was able himself to grind the lenses for his instruments and himself to make the well-known telescope which for its time was a fine piece of workmanship. Leibnitz was fond of inventing machines. Windmills and carriages to be moved without horses preoccupied his mind as much as mathematical and philosophical speculations. Linnæus became a botanist while helping his father, a practical gardener, in his daily work. In short, with our great geniuses handicraft was no obstacle to abstract researches; it rather favoured them."

Page 6, line 7.

Claude Hardy (15?—1678) was the son of Sebastian Hardy, excise officer at Mans, and was himself an advocate in the parlement of Mans. He was introduced to Descartes by Mydorge. Besides having a great knowledge of mathematics, he knew, according to Baillet, thirty-six oriental languages, some of which he learned in a single day! He produced a Latin translation of Euclid. He was a man of singular uprightness of character; and his friendship was much prized by Descartes who took every opportunity of doing him a service, making a point when in Holland of sending him books that were not to be found in Paris. Hardy

and Mydorge were chosen by Descartes to defend him in his controversy with Étienne Pascal and Roberval on the subject of Fermat's *De maximis et minimis*. (See page 8.)

Page 6, line 8.

Gérard Desargues (1593-1662) was one of the friends whom Descartes most entirely loved and He introduced the latter to Cardinal admired. Richelieu. With the idea that a knowledge of geometry would be useful in carpentering and other trades, Desargues gave free courses of lectures on the subject to the artisans of Paris, thus forestalling the polytechnic of a later day. This and other like projects of Desargues for using mechanical inventions in the interests of artisans were particularly pleasing to Descartes, because he had been revolving something the same idea in his own mind. Desargues was a practical engineer as well as a geometrician, and the fortifications of Rochelle were partly his invention. Bertrand says of him: "He wrote works that are no longer read, that perhaps never were read. After distributing the separate sheets of them among his friends, he used to placard the walls of Paris and Lyons with them, placing side by side with his theorems, which are still valuable, useless challenges to imaginary opponents to whom they were incomprehensible." His work was too original and too much above the heads of ordinary people to find favour with the multitude. Although appreciated by the greatest men of science, he was yet subject to a good deal of persecution in Paris. Finding that even his efforts to be useful to the artisans there gave offence, he retired to Lyons, his native place, and there continued to give his familiar talks upon mathematical subjects.

Page 7, line 28.

Réné Descartes (1596—1650) was born at La Haye, on the borders of Poitou and Touraine. The name was originally Des Quartes. The family was ennobled so far back that there is no record of it. In accordance with the common habit of Latinising names, his companions soon turned his into Cartesius, and although he disliked it himself, considering it an affectation and a disguise, his followers adopted it and always called themselves Cartesians.

He was sent to the Jesuit college newly established at La Flèchy, in a house given for the purpose by Henry IV. who had great schemes for its complete equipment in many branches of knowledge. Here the subjects especially studied by Descartes were moral philosophy and logic. From his study of the first he obtained four rules which were to form the basis of his own new philosophy. (1) To accept nothing as true which is not shown by evidence to be so. (2) To divide questions as much as possible with a view to solving them. (3) To carry on thought in order, beginning with the simplest objects and the easiest to be understood, and rising by degrees to a knowledge of the most complex. (4) To divide everything to be examined into

its component parts, as far as possible. four maxims which formed his rule of life were: (1) To obey the laws and customs of one's own country, remaining constant to the religion in which it pleased God that one should be born. (2) To be firm and resolute in action; and to carry out even doubtful opinions, when once adopted, as rigorously as if they were certain. (3) To work upon and conquer oneself rather than one's fortune; to change one's desires rather than the order of the world; and to be persuaded that nothing is entirely in one's own power except thoughts. (4) To make choice, if possible, of the best of the occupations open to man in this world; and to devote oneself, without casting blame on others, to cultivating the reason and advancing in the knowledge of truth as far as possible.

The contradictory teachings of his various masters in philosophy, mathematics, and other subjects led him to turn away from them all, to mark out his own course and arrive at his own conclusions. At his own request he was allowed to give special attention to mathematics and to lie in bed late in the morning in order to meditate, a habit which he continued throughout life. He never rose before noon, by which time most of his original thinking for the day had been done.

On leaving college he began a life of considerable gaiety in Paris. But the friendships he formed, notably with Mydorge and Mersenne, gradually drew him away from a life of mere amusement. When Mersenne left Paris, Descartes felt the separation keenly. He devoted himself more exclusively to study, shutting

himself up in a quiet and secluded house, not even letting his family know of his whereabouts. In this hermit-like seclusion he lived for three years, never going out except to procure necessaries, such as paper, etc., and seeing no one except now and then Mydorge or some other mathematician. At last he was hunted down by his friends. But by this time he had lost his taste for pleasure as ordinarily understood, save that music appealed to him to a certain extent on the intellectual side, and could enjoy only intellectual pursuits.

Finding that his rank and the condition of the times demanded his active services, and also partly with the idea of seeing life, he joined Prince Maurice in the Netherlands as a volunteer. At Bréda he made the acquaintance of Isaac Béeckman, Principal of the college of Dort. Some person unknown having posted up in the streets of Bréda a mathematical problem, the solution of which was invited from any passer-by, Descartes, seeing the crowds around this strange advertisement, and not knowing the language of the country, asked the nearest bystander to give him the problem in either Latin or French. This man happened to be Béeckman. He agreed to the request of Descartes on condition that the latter should promise to bring him his solution. Descartes applied the touchstone of his "method," and took the solution to Béeckman on the following day. Thus their friendship began.

In 1619, Descartes went to Frankfort and spent some time serving as a volunteer in Germany and elsewhere. During these years he was endeavouring to make up his mind as to the best course of life for him to follow. He was observing men and manners and at the same time pursuing his own meditations on mathematics and philosophy. While the troops were in winter quarters he used to live in solitude and spend his whole time in meditation. He came to the conclusion that though the structure of human science, built up from the speculations of men and embodied in books, must not be thrown down ruthlessly, yet each individual was justified in taking down his inherited portion of it and rebuilding it himself from the foundations. So he set himself to work out his own theories from the beginning, ignoring all previous work. The search for truth possessed him. He returned to Paris in 1622, and great was his joy at the reunion with his friend Mersenne, now re-established there.

Even now Descartes had no profession and had decided upon no definite course of life. He felt that he could not do better than go on as heretofore, cultivating his reason, finding out truth for himself, and allowing the utmost liberty of thought, except in matters of religion. He made a great many friends in Paris; indeed, before long their numbers increased so much as to be overwhelming. He tried to withdraw from the crowd and associate only with the chosen few; but this was rendered impossible by the importunities of his many admirers. His house became a sort of academy where all manner of followers and would-be followers congregated, all anxious to do him honour and receive favourable notice from him. Through this importunity Paris became intolerable to

Descartes, and his reputation a burden greater than he could bear. Once more he went into seclusion in another part of the city, only letting a few intimate friends know where he was. But in a few weeks he was rediscovered, returned to his old life, and presently went off in disgust to the siege of Rochelle. On his return, in 1628, he was determined to escape from the excessive heat of Paris and the excessive attentions of friends, two conditions of life which hindered his work, and to seek a cooler country and perfect solitude. Accordingly he left almost immediately and settled in Holland, leaving Mersenne as his representative in Paris. He was to receive his letters and keep in constant correspondence with him.

Descartes had now spent about sixteen years in travel and in meditation. He was a somewhat curious mixture of the man of the world and the student. He had ample means, and made use of them to see life under many conditions. Yet "it was not the great world as such that attracted him, but reflections upon it." His insatiable desire for truth was his one passion, the desire for self-instruction the one aim of his life. He ever "wished to be a spectator rather than an actor in the dramas of the world." At this stage he gave up all thoughts of adopting a profession and devoted his entire life to one problem: "The fundamental reformation of the sciences by means of a new method based on the analogy of mathematics."

He had no desire to reform the world. He held that it was a mistake to disturb ideas long established in church and state, that "theory should retire in favour of the absolute value of political and ecclesiastical interests." This is illustrated by the fact that, when about to complete and revise his "Cosmos," at which he had been working for three years, on discovering that one link in his chain of reasoning—the motion of the earth, had just been the cause of Galileo's condemnation, he withheld the book rather than offend the church.

His great works were written in Holland. The Essais philosophiques were intended as tests of his new method. The introductory essay (Discours de la Méthode) was a preliminary statement of his general position. The original title of the whole book was "Sketch of a Universal Science, by means of which our Nature can be raised to the Highest Degree of Perfection; in addition, Dioptrics, Meteors and Geometry, in which the Author has chosen the Best Cases for testing that Science, and so explained them that every Reader can understand the subject without any Instruction in Learned Matters." Descartes said he wrote his book in French, "the language of my country, rather than in Latin, the language of my instructors," in the hope that thoughtful and intelligent readers, with judgment unperverted by the study of artificial learning, would read and consider what he had to say. The occasion of the essay on "meteors," included in the volume, was the interest excited by the "parhelia," or mock suns, seen on March 20, 1629. This appearance led Descartes to the study of astronomy and especially of comets. This essay also discusses the nature of salt; the causes of winds; the nature of tempests, thunderbolts, and all other forms of aerial fire; the configuration of snow; the rainbow;

colours in clouds; the halos sometimes seen round the sun and moon.

The *Meditations* contained Descartes' arguments for believing in the existence of God. The book was forbidden at Rome and brought him into trouble with the theologians of the Netherlands.

Through the influence of M. Chanut and at the invitation of Christina, Queen of Sweden, he settled at Stockholm in October, 1649. The queen wished him to found a scientific academy there, and he went so far as to draw up its statutes. But the conditions of life in Stockholm did not suit him. The climate was too cold, and his early morning studies with the queen were too great a change from his accustomed way of life. In addition to this he nursed Chanut through an illness. On the day on which he submitted to the queen the statutes of the proposed academy he fell ill of fever. He never saw her again, and died on February 11, 1650. He was buried in the churchyard of foreigners. Chanut felt this simplicity befitting, though Queen Christina wished to lay him at the feet of the kings of Sweden and erect a mausoleum. His ashes were taken to Paris in 1667 and placed in the church of Sainte Génevieve. In the year of his death a medal was stamped in his honour in Holland. The device was the sun lighting the earth.

It seems probable that Descartes was married while in Holland. He had a daughter, to whom he was devotedly attached, who died at the age of fourteen. Nothing is known of the mother, except from his own letters.

Page 8, line 7.

President: i.e., of the Cour des aides. (See page 1.)

Page 9, line 26.

Richelieu was charmed: Cardinal Richelieu, having set his heart on seeing a children's play performed, sent his niece, the Duchesse d'Aiguillon, to gather recruits. She, having heard that the little Jacqueline Pascal and some child friends of hers had once acted a play of their own composing, went to see if she could induce the Pascal family to allow Jacqueline to come. Gilberte was at first reluctant, but yielded on its being suggested to her that if the child had the good luck to please the cardinal it might possibly be a good thing for her father, at that time in disgrace and banished from Paris on account of his supposed participation in a small rising in the city. Jacqueline succeeded in so thoroughly charming the cardinal that when the play was over he took her on his knee. Thereupon she burst into tears, and then recited some lines she had written begging the cardinal to restore her innocent father to favour. Richelieu at once consented, at the same time complimenting the little girl and her brother and sister, who were also present. The chronicler adds that all the three children were at that time "of a perfect beauty." Jacqueline of her own accord begged as an additional favour from the cardinal that her father on his return should be allowed to come and present his thanks in person. "Not only do I grant this," was the reply, "but I desire it, and moreover he is to bring his family with him." The visit took place, and, looking again upon the three children, Richelieu, after his favourite manner of princely prognostication, foretold a great future for them.

Page 15, line 8.

M. Guillebert: M. Guillebert founded a charitable organisation in his neighbourhood, for the relief of the sick and the poor. Under his influence M. de la Bouteillerie and M. des Landes each built a small hospital on the outskirts of his estate. M. des Landes, who had ten children, put the same number of beds in his hospital. M. de la Bouteillerie, who had no children, provided twenty beds. These brothers gave their services as physician and surgeon respectively to all the sick poor who came to them for aid.

Page 15, line 25.

Cornelius Jansenius (1585—1638) was born at Leerdam, in Holland. His father's name was John Otto. The son took the name Jansenius (son of John) in accordance with a custom common among the Catholics in Holland, who often changed their names in order to avoid attracting the attention of the Protestants. Jansenius studied at Louvain, where he first met Saint Cyran and at once became his friend. Later he went

to Paris to finish his studies, and afterwards to Bayonne with Saint Cyran, who made him the head of the college there. In 1617 he returned to Louvain; was made doctor of theology in 1619, and professor of holy scripture in 1630. In 1635 he became Bishop of Ypres, and died of the plague on May 6, 1638.

The Jesuits published an engraving in which Jansenius was seen in his episcopal robes with demon's wings upon his back, while the pope was fulminating against him and all his followers. In their college in Paris they had a farce performed in which this same Jansenius was carried off by devils. And in a public procession which they arranged for the students of their college at Maçon, he was represented once more; this time loaded with irons and dragged in triumph by one of the students, who represented "sufficient grace."

Page 20, line 8.

M. Camus: Peter Camus was Bishop of Belley for twenty years. At the end of that time he retired, with the king's consent, to Normandy, where he was presented with the Abbey of d'Annay. But the Archbishop of Rouen, de Harlay, knowing his apostolic zeal, prevailed upon him to come out from his retirement and take the oversight of the diocese as its vicar-general. He wrote against some monkish abuses. He was well-known for his kindness and charity to the poor. Later, he was about to take up his abode in the Incurables when he was appointed by the king to the bishopric of Arras. He

was not only a friend but an enthusiastic admirer of Saint François de Sales. Knox Little says: "Their dioceses were near together. Once a year the two bishops met for a week's retreat in one another's houses. The good bishop who, in relation to Saint Francis, played thoroughly the part of a Boswell to his Johnson in his L'esprit de S. François de Sales, has told in a sufficiently naïve way his reminiscences of his friend. From his narrative we gain a vivid picture of that especial sweetness and power so evident in the teachings of 'The Devout Life.'"

Page 23, line 11.

Antoine Singlin (1607-1664) was born in Paris. He was the son of a wine merchant and was brought up for a commercial life. But he came under the influence of Saint Vincent de Paul, who turned his thoughts to religion; afterwards under that of Saint Cyran, who brought him into connection with Port Royal. He was really forced into the office of confessor and director there during the imprisonment of Saint Cyran by the insistence of the latter, who saw in his humility and reluctance to accept it the very marks of his fitness for the position. Like Saint Paul, he was accustomed to speak of himself as the vilest of sinners, and was slow to believe that through him any saving grace could come to other souls. Profoundly humble, and overwhelmed with the greatness of the task laid upon him, he yet performed it to perfection.

He was not a man of scholarship, nor indeed of any great intellectual attainments, but had a special faculty for dealing with the individual soul; this was what Saint Cyran perceived in him. He held the office of confessor for twenty years; and for eight years that of superior of the two houses of Port Royal, conferred on him by Cardinal Retz. Like Mother Angélique and like Nicole, he felt a constant drawing towards a life of solitude rather than a position of public responsibility. At the time of Saint Cyran's release from prison, and again at his death, M. Singlin sought to be relieved of his charge, but he was entreated, nay, almost compelled to keep it. He played a large part in the life of Port Royal. He avoided as far as possible all theological disputation and interminable argument, and endeavoured to live a simple religious life. His famous sermons (mentioned in the text) were afterwards published under the title of Instructions chrétiennes and formed part of the store of religious literature which emanated from Port Royal. When suspended from office on account of the persecutions, he used still to go to those who needed his services, disguised as a physician, "which," he said, "in truth I am." His ejection from Port Royal and the substitution of a Jesuit as father confessor in his place was a severe trial to Mother Angélique when her mortal illness was upon her. For the spiritual counsels of M. Singlin had been her constant support, and it was a cause of distress to her that she could not in her last moments receive his consolations. He died, it was said, of excessive austerities and also of grief at the outcome of the Jansenist controversy, in which he inclined towards moderation. His body was taken to Port-Royal-in-the-Fields.

Page 29, line 23.

Clear and distinct: The expression "clear and distinct" was one of the familiar phrases of the Cartesians, and is interesting as marking the first step towards the building up of the theory of ideas afterwards continued by Leibnitz and Wolf. Thomas Spencer Baynes, in his edition of the "Port Royal Logic," written by Arnauld and Nicole, says: "The authors (of the P. R. L.) discriminate, in ideas, the qualities of clearness and obscurity, and come so near to the distinction afterwards taken by Leibnitz which completes the analysis of ideas in this relation—the distinction, to wit, of distinctness and indistinctness or confusion—that we can but marvel how they missed it. . . . The clearness and confusion of ideas was a favourite subject with the Cartesians generally, but one, nevertheless, which was never fully investigated by themselves or explained by their master. Wolf says that 'Descartes proceeded no further than to clear and distinct ideas'; but even this somewhat overrates what he accomplished; for though he employs the terms, he establishes no difference between clear and distinct ideas. He lays it down, indeed, in his 'Discourse on Method,' as a general rule, 'That the things which we see very clearly and distinctly perceive are true'; but he has nowhere explained the conditions of an idea's clearness as discriminated from those of its distinctness. The Port Royalists approach this distinction, but are still unsuccessful in their analysis. Leibnitz has clearly established it, and added the further distinction of adequate and inadequate. . . . These are not, however, the only distinctions of importance here taken by Leibnitz. His division of knowledge into symbolical and intuitive shows at once the connection of ideas with words, and explains how we may often employ the one without realising the other."

 $\begin{array}{c} \text{Leibnitz puts it thus:--} \\ \text{I. Obscure.} \\ \text{II. Clear} & \begin{cases} 1. \text{ Confused} \\ 2. \text{ Distinct} \end{cases} \begin{cases} \$1. \text{ Inadequate} \\ \$2. \text{ Adequate} \\ \$1. \text{ Intuitive} \end{cases} \\ \text{Perfect.} \\ \$2. \text{ Symbolic} \end{cases}$

Page 30, line 10.

Étienne Pascal interposed: He began his letter by pulling to pieces the title of the pamphlet, which was, literally translated: "The full of the empty; or, the substance with which the apparent vacuum of the new experiments is filled discovered by other experiments, confirmed by the same, and demonstrated by arguments from physics." Étienne Pascal says: "The title, Le plein du vide, is subtle, artificial, fanciful, or rather it is composed of a figure that is called antithesis if I mistake not. Now, firstly, a true antithesis should show not its obvious meaning alone but also its subtlety and its point; e.g., death is the beginning of real life: to serve God is to reign: human wisdom is

folly, etc., etc.; secondly, no antithesis can properly consist of two adjectives without a noun or attribute. As well say: the rich of the poor, the weak of the strong, etc., etc." Étienne Pascal, waxing yet more ironical, argues that Father Noël, feeling his position weak, has had to appeal to all sorts of out-of-the-way matters. "You have no idea of sequence," he says; "you jump from one thing to another with great celerity and clutch at help from any quarter. 'Tis a far cry from Aristotle to Descartes. You invoke the aid of many authorities, and I have a shrewd suspicion that if put on your oath you would be bound to confess you knew nothing about any of them. Why did you not say when mentioning the 'subtle matter' that it was an invention of Descartes? Did you wish to imply that it was invented by you? Or did you wish your readers to think it was no new invention at all? Be this as it may, you have managed most artistically to place in close juxtaposition the 'sphere of fire' and the 'subtle matter,' perchance from a desire to disown both Aristotle and Descartes and yourself pose as the author of the two theories. To this curious combination you have added another: 'solar spirits' and 'volatility.' All this medley of theories you have in the most miraculous manner contrived to mix up and make believe you have had a hand in them yourself."

Page 30, line 14.

Fiery Sphere: The 'sphere of fire' was the sphere of the outer heaven, which Aristotle conceived as being composed not of perishable matter but of divine fire or ether. In his scheme the earth was stationary; the planets, including the sun and moon, moved round it; and beyond these was the sphere of divine fire in which were the fixed stars.

Page 30, line 15.

Solar spirits: Father Noël says: "The other elements are all present in the air. . . . That there is also present the elemental fire (I mean that fire which is so minute and so rare as to be invisible, and thus quite different from flame and lighted charcoal which is surrounded with sparks or little flames that are extinguished in water, and is not the elemental fire); that there is this fire in the air, I say, we may know by the centre of the burning glass focussing the rays that are in the air, and also by the handkerchief which, held before a fire, gathers up the igneous spirits which the air around the fire brings to it. And this elemental fire is even so corporeal as to be visible; for, in a cold, dark place you may see the handkerchief emit sparks if you have first well spread out and warmed it, then wrapped it up while still warm and you afterwards open it out and pass your hand somewhat briskly over it. If our chimney fires fill the air around with fiery spirits, the sun, which kindles by means of reflection and refraction, may well spread solar spirits through the whole of the air surrounding the world, and thus cause the presence of fire there. indeed, the air is full of this elemental fire, which

sometimes separates from it when the air is pressed by hard and solid bodies moving quickly through it. The heat we experience from the violent pressure of the air comes from this separation.

The light that is in the air is a strong argument in favour of the existence of solar and fiery spirits which are lucid and whose movement as light-giving bodies is what we call light. Let me explain myself. By a lucid body (which I distinguish from light-giving inasmuch as the light-giving body is that which we see, and the lucid body is not to be seen) I understand the body which affects the sight by its movement, that is to say, which makes us see. And that which makes us see is that which affects the part of the living brain which terminates the optic nerves, these being all filled with those little bodies that we call lucid spirits; this part of the living brain is the power that we call sight. The movement which has this effect on the brain we call light-giving; and it only applies to those little bodies which are capable of producing sight. A body that we call transparent is always full of these lucid spirits, or very mobile little bodies; but these bodies have not always a light-giving movement, that is to say, a movement capable of producing sight; and it is only a light-giving body, as, for example, flame, that can cause this light-giving movement. As the steel causes magnetic movement in the iron filing without doing so in the case of a grain of sand, so the flame or light-giving body causes light-giving movement in lucid spirits and not in others. Hence I conclude that since the air is transparent there are in it great numbers of lucid and very mobile spirits; and that,

these being ignited, there is in the air fire, which I call elemental; and, further, that it separates itself from the air, and, when separated, I call it ether."

Page 30, line 15.

Volatility: This was a quality attributed to the ether by way of accounting for the suspension of the mercury in the tube. Father Noël contends that the ether filling all space is composed of a 'subtle air' (identical with the subtle matter of Descartes) and of 'solar spirits.' (See above.) To this ether he gives a quality which he calls légèreté mouvante (volatility). Here he confuses the Peripatetic and the Cartesian doctrines (see above, Etienne Pascal's letter); since volatility was one of those occult qualities which were accepted without being investigated by the ancient philosophers, but which vanished before the scientific exactitude of the school of Descartes.

Page 33, line 14.

Theses: These academic theses formed a recognised method of bringing up such subjects for discussion. Mahaffy says: "In these disputes the professor set forth a thesis, sometimes with explanatory preface or comment; and appointed one of his pupils, whom he carefully instructed, to defend it. It was attacked by some other young man among the pupils of other professors, and the disputes were carried on publicly amid the applause or

hissing, as the case might be, of a large and deeply interested audience. These disputations on theses must have corresponded closely to the debates in our college societies or unions, except that we generally exclude politics, and avoid the professed subjects of university study; whereas in those days such theses were a strict part of university training, and always in the subjects taught by some professor."

Page 46, line 8.

Chevalier de Méré: Although Méré played so large a part in the intellectual and fashionable world of his day, and in spite of his keen wit and ready pen, scarcely any particulars of his life are known. His aim was to touch life at many points and acquit himself honourably in all relations. He refused a label, saying that he was a citizen of the world, as was Socrates: that when at court he was no courtier, and when visiting his native village he was no villager. His self-appointed rôle was the delicate one of a master of elegance and good manners. But he carried it too far and became too set, too much of a type, bringing himself into ridicule both as a man and as a writer by reason of his insufferable conceit and pedantry. He loved, as we see in the case of Pascal, to have some one to patronise, to introduce to life as it were; and he never doubted his own powers of instruction in matters of conduct and manners. He made the code of the honnête homme in his Discours sur la Vraie Honnêteté (Discourse on the true nature of Honnêteté). He it

was who very largely introduced and expounded the seventeenth century signification of this phrase, which up to that time had signified 'honest man,' as we should use the word in its larger sense. Now it came to mean approximately what we mean by a Christian and a gentleman. Pascal adopted the phrase on its most exalted side. With Méré there was in the code of the honnête homme something also of a lower kind. He advocated the passing of life as pleasantly as might be, with as little annoyance as possible to oneself and other people. Méré's honnête homme must have no calling nor profession. Perfect leisure is his appropriate atmosphere. To be able to do everything and to be obliged to do nothing, that is the best condition for the exercise of his powers. He must not have to struggle for place or money, but must always be diffusing happiness everywhere; he must take part in all that makes life pleasant, to others as well as to himself—even to his enemies. People who smile upon you one day and avoid you or fail to recognise you the next day are the opposite of the honnête homme who, whether he is in the heart of the desert, or at court, or in any unexpected circumstances, or in fact at any moment, is always the same, because his manners are the expression of his inner nature. Fortune, whether his own or other men's, affects him not at all; he is far above such considerations. "I count nothing on earth to be above honnêteté," says Méré; "it is the quintessence of all the virtues."

Page 56, line 15.

Raymond de Sebonde, the author of a work on Natural Theology, was born at Barcelona in the four-teenth century, and died in 1432 at Toulouse, where he professed medicine and philosophy. Montaigne translated the book in his youth and later defended it in the essay here mentioned.

Page 57, line 27.

Discours sur les passions de l'amour: The word passions is here used with its special, seventeenth century meaning, and would be more properly translated by "psychology" were this not too modern an English word.

Page 84, line 12.

Masks and Gloves: These were a sign of vanity, and should have had no place in a monastery. They belonged to women of fashion who wore them to preserve their complexion. The mask was of black velvet or satin, and was used both day and night; by day to protect the face from sunburn and at night on account of the cosmetics which had been applied. The mask worn by the lady of rank proclaimed her gentle birth; for it was a privilege of the aristocracy forbidden to the women of the middle class.

Page 84, line 15.

She heard a sermon: Mother Angélique says naïvely in her memoirs: "At nightfall there came a Capucin Céans, asking if he might preach to us; and I was very glad, for I was very fond of listening to preaching and had but few opportunities of doing so. When I came to the monastery it was thirty years since there had been any preaching there save on the occasions of profession. But after I came we used to send, at the four festivals of the year, for some young preachers belonging to the Bernadines, who preached so pitiably that their sermons were only occasions of sin to us by reason of the mirth they caused us." She adds that she looked upon it as a great providence of God on her behalf that she was sensible of the unsuitability of placing herself, a girl of sixteen, under the spiritual direction of so young a man, the more so as he afterwards became an apostate and was expelled from his monastery on account of his evil life.

Page 84, line 20.

She resolved to reform her abbey: This was the first reform effected in any house of the Cistercian Order, and aroused much opposition. Monks and abbots entirely disapproved of the giving up of the good cheer, idleness, and ease which had come to be the recognised tradition of the Order. The nuns were denounced as mad, infatuated, innovators, even schismatics, and threatened with excommunication. Mother Angélique, in persuading her nuns to follow

the rule of Saint Bernard, went very gently to work, lest she should turn them against it. She contented herself with setting them an example, saying but little to them, praying much for them and accompanying with many tears the few exhortations she addressed to them.

Mother Angélique was sent to superintend the reform of many other monasteries, notably Maubuisson, the faithful members of which looked upon her and her spiritual daughters as so many angels sent down from heaven by God for the reform of his church. At Maubuisson there were exciting episodes. During Mother Angélique's sojourn there the expelled abbess Mme. d'Estrées returned with some young cavaliers, and a forcible attempt was made to turn out Mother Angélique. One of the young men held a pistol at her throat, and the confessor of the convent, who was an enemy to reform, urged her to retire. Needless to say, she stood to her post. But her opponents, having force on their side, succeeded in ejecting her and the nuns she had brought with her from Port Royal. They walked away in sad procession, hand in hand and closely veiled; till the people of the neighbourhood took pity on them, housed and fed them. In a few days a new order for the arrest of Mme. d'Estrées was carried out; Mother Angélique and her nuns were re-instated, and remained at Maubuisson five years. At the end of this time she returned to her beloved Port Royal, taking with her thirty of the Maubuisson nuns, who besought her on their knees not to leave them behind. Nevertheless they entered their new home somewhat abashed, knowing that their

coming must impoverish it, since they brought scarcely any money for their support.

It was at Maubuisson that Mother Angélique first met Saint François de Sales, and at once gained his lifelong friendship. Through her he made the acquaintance of her family, and often when in Paris visited her father and her eldest brother, M. d'Andilly. He used also to see them at their country house, and on his last visit there gave his blessing to Antoine, the future doctor of the Sorbonne, who was then only six years old.

Page 85, line 23.

Christian charity: For a long while the monastery had its own physician and surgeon, who gave their whole time to attending the sick poor, going round among all the neighbouring villages for this purpose. And when the monastery could no longer afford this, the sisters themselves undertook the work as far as they could. They opened a kind of infirmary within the abbey; and also regularly dispensed food and clothing to the poor.

Page 86, line 3.

Removed to Paris: The house in the Faubourg St. Jacques to which the Port Royal nuns removed was bought for them by the mother of Mother Angélique, Mme. Arnauld, who after a few years of widowhood had resolved to take up monastic life under the spiritual

direction of her daughter. It was at first intended that only a certain number of the community should remove to Paris so as to relieve the overcrowding which, together with the unhealthiness of the district, had made Port-Royal-in-the-Fields little better than a hospital. As the sickness, however, continued to increase, it was decided to abandon the country home altogether. But in time one of the causes which had driven the nuns into their city dwelling drove them out of it. Their numbers had increased to over a hundred, and once more their house was too strait for them. Some of the sisters, under the charge of Mother Angélique, were accordingly drafted off to Port-Royal-in-the-Fields, with the idea of maintaining in the two houses one community under the rule of one They found their former house very much transformed. When they quitted it they left behind only the domestic servants and a chaplain to administer the sacrament to them. But the recluses who had since taken up their abode there had lived by no means an idle life. They had attended to and improved the administration of the abbey, had rebuilt some parts of it with their own hands, cultivated its gardens, drained some of its marshes, and made it in various ways more healthy and habitable.

Page 87, line 15.

M. de Saci (1613—1684) was the younger brother of Le Maître and de Séricourt, and the nephew of Mother Angélique and of 'the great' Antoine Arnauld. The name by which he was known is an adaptation of

his real name, Isaac Louis Le Maître. He was born on March 29, 1613. He fulfilled exactly and strictly the duties of his position, and those alone. His work was colourless, outwardly unimpassioned; but his design was definite, unbroken, clearly outlined in his own mind. He was gifted with a certain amount of literary taste and with a sense of humour which he did his best to suppress after he entered the priesthood. He scorned all embellishment, and was before all things straightforward. He turned neither to right nor left, entered into no controversy, but went steadily on in his appointed path; a man of stern purpose with all his timidity. His life, says Sainte Beuve, was the straight line of Port Royal. He had a vivid consciousness of the close presence of God, and the greatest reverence for the very words of scripture which he believed to be the words of angels. His natural timidity and humbleness and his high idea of the duties of the priest made him very loth to accept the office of confessor; but at length, at the earnest persuasion of M. Singlin, he yielded and undertook it with a grave and tremulous joy. This was in December, 1649, when he was thirtyseven years old.

The only charge to be brought against him is that, in his reply to the Jesuits' "Tract for the Rout and Confusion of the Jansenists," he employed ridicule of a somewhat questionable character.

M. de Saci applied to the world the saying of Isaiah reversed: Verily thou art a God that hidest thyself. He put "devil" instead of God; and said, with somewhat bold imagery, that the world was the Eucharist with a difference: everywhere the devil present,

hidden and ready to be worshipped. When the question was asked whether or no it was advisable to allow young people to travel, M. de Saci answered: "What is travelling after all but going to see the devil in all sorts of guises; à l'allemande, à l'italienne, à l'espagnole and à l'anglaise, but still always the devil?" Speaking of the Cartesians, who in their day represented the rationalists of a later time, the apostles of reason as opposed to revelation, M. de Saci said they groped after truth, but it was a remote chance whether they ever found it or no. He said: "I look upon them as I looked the other day upon the dial when passing over the Pont Notre Dame. The dial was telling the truth just then, and I said: 'Let us get past quickly; it will not do that much longer; it is the truth that has come across the dial and not the dial that has met with the truth. It tells the truth by chance once a day."

From his secretary, Fontaine, we have many details of his life and a picture, coloured somewhat perhaps by the enthusiasm of a devoted disciple, of the beauty of his character. In 1661 he had to retire from Port Royal and remain in concealment in Paris. During this time he was still always at the service of any who needed him; and on the death of M. Singlin in 1664 he became yet more heavily weighted with responsibility. After eluding his enemies for some time and after being tracked for several days, at length, at six o'clock on the morning of May 13, 1666, he was arrested while walking through the city with Fontaine. His first thought was characteristic of the man. It was an impulse of regret that on that morning of all others he should have come away without his pocket

copy of Saint Paul's Epistles. Living daily with the likelihood of imprisonment in the near future, it had been his habit to carry it about with him; indeed, he had had it rebound on purpose, saying that whenever he was taken they might do what they would with him if only he might keep this for his daily companion. This morning, in prospect of a long walk in the heat, he had left it at home.

There was found upon M. de Saci at his arrest, among other papers, the preface in manuscript of the Mons translation of the New Testament (see Note, page 90), in the making of which he had the largest share. The work, with the exception of the preface, had been completed before his imprisonment. While in the Bastille he also translated the Old Testament. The early days of the imprisonment were the worst, because then the two friends were separated from each other. By the good offices of Major Barail, one of the prison officials, many of the hardships of the prison discipline were softened in their case. So keen was the sorrow of Fontaine at the separation from his beloved De Saci that he languished and came near to dying. No prospect of release availed to cheer him. "My liberty," he cried, "is to be with M. de Saci, and did you but open to me at the same time the door of the prison and the door of his cell you would soon see to which of them I should fly."

At length they were allowed to be together; and from this time their condition scarcely deserved the name of imprisonment, but became a life of undisturbed work and meditation. At two o'clock on certain days they were allowed to walk upon the terraces. Thence they could sometimes see their friends in the distance, though they might make no sign to them. They pointed out to each other the church of Saint Paul, and thought of the apostle and his bonds; or the great cathedral of the Jesuits hard by, a reminder of their ill-gotten domination; while in the other direction the mass of the prison at Vincennes rose towards heaven as a lasting memorial of Saint Cyran. Then, when the two friends went inside once more, what mattered the noises of the outer world? They enjoyed to the full their solitude and their peace.

But there were privations. Chief among these, and, far before any physical privations to M. de Saci, was the being cut off from the sacraments, even from lay communion. This to him was the supreme loss. He tried to look upon it, however, as a kind of penance, and was always accustomed to speak of these years as the most quietly happy of his life. His grief at this time was not for himself but for what seemed to him the spiritual deadness and blindness of heart of his enemies. One day a great joy came to the two friends upon the terrace. They saw the blessed sacrament being carried past in procession and recognised three of their friends in the place of honour, chosen to bear it along the streets. They exchanged a glance, and then with bowed heads silently gave thanks for this singular honour and joy.

In 1668 came the order for release. On the very day before he was set free, M. de Saci completed his translation of the Old Testament. He lived fifteen years longer, spending his time as heretofore in the direction of souls and in the publication of the Bible, brought out in parts with many elucidations of the text. He died, in the middle of a severe winter, on January 4, 1684, aged seventy-one, having said mass and administered spiritual counsels only the day before. He died in that calmness of mind and peace of heart in which he had also lived.

He requested in his will that he might be buried at Port-Royal-in-the-Fields. Thither his body was borne from Paris in the night, across ice and snow. It was received at five o'clock in the morning at the threshold of the church by a hundred sorrowing nuns carrying lighted torches. It was then placed in one of the chapels and arrayed in its priestly robes. Here it lay until the burial, in order that the many mourners might gaze for the last time upon the face they had loved.

"The figure of M. de Saci," says Sainte Beuve, "as we have it from Fontaine and others, is like a Rembrandt picture in a dark room, the tone sombre, the outline austere."

Page 87, line 32.

Robert Arnauld d'Andilly (1589—1674), the eldest brother of Mother Angélique and of the great Antoine Arnauld, did not belong to the sterner side of the life at Port Royal, which was represented by De Saci and others. In his prolonged and serene old age and with his venerable crown of white hair, he was as it were the patriarch or paterfamilias of the recluses. His connection with Port Royal began in 1620, when he

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first met Saint Cyran at Poitiers. Their active and life-long friendship began at once. Saint Cyran, who knew him very intimately, says: "It is true he has not the virtue of an anchorite or a saint; but no man living is better at heart than he." His easy disposition characterised the manner of his leaving the world for the monastery. He did it quite at his leisure, spending eighteen months in settling his affairs and bidding farewell. Not over-penitent, so it would seem, yet just penitent enough to take the step! He was fifty-seven when he retreated to Port Royal. There he at once entered with zest into the occupations arranged for him beforehand as superintendent of the gardens. As he grew older he seemed to grow in life and vigour rather than to decline. Fontaine speaks of his eager glance, of the animation of his speech and manners, and of his whole appearance, which seemed to belie his years and made him seem more like fifteen than eighty. His quick eyes, his steady walk, his deep, resonant voice, his upright carriage, his silvery hair set off so well by his bright complexion, the grace with which he could mount and dismount his horse, the 'tenacity of his memory, the alertness of his mind, the fearlessness of his hand whether in using the pen or in felling trees-all these were like a kind of immortality, or, as Saint Jerome puts it, an image of future resurrection. All through his life he united in himself two things which are well-nigh incompatible; to wit, world-"Thus," says Fontaine, liness and saintliness. perhaps with a touch of exaggerated enthusiasm over his subject, "thus, whether working at his translations or assisting at the blessed sacrament, or in the garden

tending his 'monster-fruits,' as he called them, he justified the emblem his friends put beneath his portrait: a swan sailing placidly over the water and singing as its death song: Quam dulci senex quiete." The more temperate and measured testimony of Du Fossé confirms that of Fontaine. D'Andilly's work in the grounds was both useful and ornamental. drained a pestiferous marsh, and thus made the place more healthy. He grew flowers as well as fruit of many kinds, paying particular attention to peaches. Neither recluses nor nuns ever tasted these fruits. They were sold, and the money given to the poor. But d'Andilly also made presents of them to the queen, to Mme. de Sablé, Mlle. de Montpensier and others. In a letter to Mme. de Sablé he gives directions for the careful unpacking of the fruit and special injunctions that it should be eaten ripe. He used to send each year to the queen the first fruits and the choicest; and she fully appreciated the attentions and the charm of the old man. Cardinal Mazarin said the queen was unaccountable in the matter of the Jansenists; taking them as a whole, she quite agreed that they should be exterminated; but when it came to losing any one of them in particular and when it was proposed to begin with M. d'Andilly, she would not hear of it; they were far too valuable members of society and far too loyal servants of the king to be dispensed with.

The presence of M. d'Andilly at the abbey always formed somewhat of a link between the monastery and the court. He sometimes left his retreat for a short season and went to see his friends; they also visited him in return. Mme. de Sévigné speaks of the efforts

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make by the king to entice M. d'Andilly from his retreat. The king, she says, accused him of vanity in having stated in the preface to one of his books that he was eighty. The king added that he need not think he would be allowed to remain in his solitude, for he would send for him. D'Andilly replying that he would be faithful to God, the king answered that he who is faithful to God is faithful also to his king. "Then wonderful things happened," says Mme. de Sévigné; "the king prevailed upon the old man to partake of dinner served from the royal table and to be driven out in a carriage afterwards. The king was sounding his praises all day long. M. d'Andilly, in the midst of his enjoyment, kept saying to himself, conscious that he needed the reminder: 'Self-humiliation is the thing.' You may imagine how mightily I enjoyed it all!" In another letter, when enumerating the friends who were round her at the moment, she says: "I have M. d'Andilly on my left, that is, on the side nearest my heart." And again: "Yesterday I left Paris in good time and went to dine at Pomponne. There I found our good friend M. d'Andilly awaiting me. I should not have liked to miss saying farewell to him. He grows in holiness in the most astonishing manner. The nearer he gets to death the more of a saint does he become. He gave me a very serious lecture; and, carried away by his zeal and his affection for me, he told me what madness it was in me not to think about the state of my soul; called me a 'pretty pagan'; told me I made an idol of you (her daughter), and that this form of idolatry was as wrong as any other, though it might not seem so to me;

in a word, that it was time for me to be converted. He said all this so forcibly that I had not a word in reply. After six hours of talk, very pleasant although very serious, I came here, where I found the month of May flaunting in triumph. The nightingale, the cuckoo, the lark, have opened the spring in our woods." She says of him on another occasion: "If M. d'Andilly had a choice of souls to be saved through his means he would prefer to save a soul that chanced to inhabit a beautiful body."

Racine, too, gives a charming picture of the genial, white-haired recluse, in reading which, says Sainte Beuve, we can fancy we see M. d'Andilly getting up from his flowers and running to meet us between his espaliers.

Besides all this he was among the most academic and literary of the recluses. He wrote many verses; but his chief literary works were translations. Among them were the writings of Saint Theresa and Josephus' history of the Jews, the latter being his magnum opus, performed with much care and written, he himself said, ten times over. Also the lives of the Syrian anchorites, which although only a translation is, says Sainte Beuve, "a living and natural picture in which the amiable translator lives in every page; it is full of the scent of flowers and the humming of bees." Philippe de Champagne found in it the subject of a series of pictures.

. D'Andilly lived uninterruptedly at Port-Royal-in-the-Fields for ten years, until 1656, playing the part of hospitable recluse, doing the honours of the place to all and sundry guests. In 1656 the order for dispersion came. After a month of exile he was allowed to return by special favour of Cardinal Mazarin who on receiving his thanks sent him a friendly letter, begging to be remembered in the old man's prayers. In the years of persecution that followed, d'Andilly endeavoured to conciliate the two parties; and his persistent efforts in this direction caused some slight bitterness between himself and his brother Antoine, the great doctor.

Once more, at a later ejection of the nuns, we see the aged d'Andilly, who was present in the church, going up to his sister, Mother Agnes, who, feeble through age and illness could scarcely walk, and taking leave of her and afterwards of his three daughters. The latter threw themselves at his feet to receive his double blessing as a christian and a father; then he helped them into their carriage. Upon this act the archbishop thought to found a charge of wishing to excite sedition; but the queen-mother maintained that M. d'Andilly was incapable of such an intention.

Page 88, line 3.

Antoine Arnauld (1612—1694). "The great Arnauld" was a man of vast erudition and inexhaustible mental power. He was a controversialist to the core, "a born fighter and delighted to smell the battle afar off." It is said that as a mere child he asked for a pen from Cardinal Perron and when told to say what he wanted it for, answered, "To write against the Huguenots, as you do." He was placed

under the spiritual direction of Saint Cyran, who, together with his mother, induced him to take up theology rather than law as his line of life. And later, these two, the one from her deathbed and the other from his prison at Vincennes, sent him encouraging messages, urging him to wage war to the death in defence of the truth. His first collision with the Jesuits was on the score of his book, Fréquente Communion, which dealt with the question whether one ought to take the communion when full of worldly thoughts, or just before or after any worldly excitement. Arnauld upheld the stricter view and maintained that one ought on these occasions to forego the communion. After being turned out from the Sorbonne, he retreated to Port Royal and lived there in retirement until the Peace of the Church. He was then received with honour in the high places of both church and state; but Father Annat and others prevented his being allowed to return to the Sorbonne, and he spent the rest of his years in seclusion, some in Paris, some in the country, and some in Brussels, where he died on August 8, 1694, having passed a great part of his life in exile and poverty.

He was distinguished by his undaunted spirit, his love of truth, his fine sense of justice. In science, philosophy, religion and politics he excelled. He was of short stature, with very large head and bright eyes. He wielded a terrible pen in controversy, but in daily life was a man of simple and gentle manners. His writings, though they rendered inestimable service to the cause of truth and morality, were controversial rather than literary. He was not a writer in the same

sense as Pascal. His deficiences in this respect were partially covered by the polished style of his coadjutor, Nicole. (See following note.)

Page 88, line 7.

Pierre Nicole (1625-1695) was born at Chartres on October 19, 1625. He was the son of an advocate and came of a highly intellectual family. He was throughout life an omnivorous reader of all kinds of literature, sacred and profane, being in this respect the greatest possible contrast to M. de Saci, for whom the scriptures were all-sufficient. In 1642 he was sent to Paris, where his ambition was to become a doctor at the Sorbonne. This idea however he gave up at the time of the condemnation of Arnauld, deeming it wiser to be content with his bachelor's degree. His first definite connection with Port Royal was as a teacher in the schools. When these were removed from the city to Port-Royal-in-the-Fields he identified himself with them completely. He was under the spiritual direction of M. Singlin who, with all his austerity, was better able to appreciate various types of mind than M. de Saci. The closest possible union existed between Nicole and Arnauld and also between Nicole and Pascal. The latter exercised a very strong moral influence upon him. In 1654 Arnauld adopted him as his companion in work, and through the stormy times that followed he was the right hand of the great doctor. They worked together during the periods of enforced concealment which

preceded and followed the condemnation, and Nicole's easy and elegant Latin proved invaluable in carrying on the great controversy. The "Port Royal Logic" was their joint production. But although Nicole remained for many years the inseparable companion and co-worker of Arnauld, he regarded the Jansenist cause quite otherwise than from the traditional Port Royal point of view. He held that the heresy of the Jansenists was a purely imaginary one, created in the brains of their enemies; that in reality the Jansenists were in accord with Rome and the whole affair was much ado about nothing. Thus he weakened the cause of Jansenism for the sake of saving it. The whole atmosphere of controversy however was uncongenial to Nicole, who was by nature a student and not a reformer. He has been called the Melancthon of Jansenism as Arnauld was its Luther. Where Pascal and Arnauld would fulminate, Nicole would conciliate and temporise. Being of delicate health and constitution, a lover of solitude, inclined towards melancholy, and a hater of controversy, he often longed to be free, and said of himself that he was like a man who, having embarked in his boat in quiet waters, had been driven out to sea by the tempest and compelled to travel round the world. Yet the personality of Arnauld, with whom he fought side by side, as two gladiators sometimes used to fight chained to each other, and the urging of his companions, kept him up to the work which, however distasteful to him, he was so well fitted to perform by reason of his facile pen and his subtle power of discrimination. In 1679 the long companionship was broken. Arnauld, about to travel into Holland, begged Nicole to accompany him. The latter refused, and separated himself from his old chief on the plea that he needed rest. Then it was that Arnauld made his famous reply: "Rest! shall we not have all eternity to rest in?" Nicole was extraordinarily lacking in physical courage and abnormally shy. He dared not cross a river without a life belt; he was terrified at the thought of ascending a high tower, and would never go out in a strong wind lest a tile should fall on his head. It is said that in one house where he was working at his Essais de Morale he had a trap door made under the table, so that by a movement of his foot he could make the table disappear with all his working apparatus when anyone came to see him, and its presence would be quite unsuspected. could not bear with a good grace contradiction in dispute, and indeed was a far readier controversialist with his pen than with his tongue. He said of himself: "A doctor may get the better of me in my study, but by the time he is at the bottom of the stairs I have confounded him." He was a most upright christian and always unshaken in his religious faith, not troubling himself about minor points of doctrine. Sainte Beuve says he was a believer who never, so to speak, walked round his faith, but dwelt within it. He was humble and modest, always ready to learn from anyone, and always ready to give Arnauld the glory of their joint work. He had no power of invention, but, given something to write about, and, in his study with pen and paper, he was ready to unravel anything, however abstruse or involved. In his outward appearance there was nothing remarkable. He

was of medium height, with aquiline nose, large, wideopen, blue eyes, and a timid and modest mien; often absent-minded and seldom merry. This gentle and inoffensive man had his share in the sufferings brought on by the persecution of the Jansenists which involved for him some years of exile from Paris. He finally returned in 1683 and passed his last days there very quietly. "His simple household goods," says Sainte Beuve, "included a fine library and a few portraits by Champagne of some of the Port Royal nuns; these were his luxuries. Add to these an occasional meeting with some few kindred spirits with whom to talk over controversial matters; this was his own private Academy. Here we have the whole man, with his taste for a retired life, with his very decided taste also for a certain amount of mild controversy such as, while leaving the questions discussed as doubtful as ever, yet serves to pass in review a number of different opinions, and above all to afford exercise for the reasoning powers. A quiet frugality, the plainest of furnishing, and withal a picture or two by Champagne in the background,-such is the ideal retreat, bespeaking rather piety than penitence, wherein this christian man of letters was to pass the evening of his life." He died of paralysis in 1695. He had asked that he might be buried without pomp, and also that his heart might be taken to Port-Royal-in-the-Fields and laid beside his old companion Arnauld, but the friend to whom he expressed this last wish did not hear of his death in time to carry it out.

The amount of his literary work was enormous. As a controversialist, he wrote mainly under the influence

of Arnauld; as a moralist, under that of Pascal. Among the more important of his works were his Latin translation, under the assumed name of Wendreck, of the Provinciales, with dissertations of his own upon them; his Lettres Imaginaires, written somewhat after the style of the Provinciales; his share in the "Port Royal Logic" and in the Mons translation; a work on the Eucharist; and, above all, his Essais de Morale. When reading the latter volume, Mme. de Sévigné breaks out into ecstatic admiration of both the style and the matter of Nicole's writings. She says to her daughter that the essay upon The way to preserve peace with all men is "like searching the heart with a lantern." The whole book she finds admirable; she cannot lay it down; and finally: "What do you think? I am beginning that essay over again. I really wish I could boil it down into broth and swallow it." The Marquis de Sévigné did not share her admiration for Nicole's style. He said reading Nicole was like eating too much blanc-mange; his language was too choice, over-refined, not to be named in the same day with that of Pascal. And in truth, when compared with Pascal's fervid eloquence, the style of Nicole is somewhat cold and unimpassioned, the style of the gentle scholar who from the midst of his own scholastic retirement would fain impart his high ideals to other men, but without personally drawing near to them.

Page 88, line 17.

Petites Écoles. These schools originated with Saint Cyran, who was keenly interested in the training of the young. Before his imprisonment he had under-

taken the education of two or three boys who whilst he was in prison were under the charge of M. Le Maître at Port-Royal-in-the-Fields. Others joined them there, and in 1646 or 1647, their number having greatly increased and the nuns being about to return to the abbey, regularly constituted schools were established for them in Paris. Four masters were appointed: M.M. Lancelot, Nicole, Guyot, and Constel, each of whom had a separate room and taught about six pupils. Lancelot taught philosophy and the humanities; Nicole, Greek and mathematics. Sundays the pupils were taken to hear the preaching of M. Singlin. For about four years the schools were carried on under more or less peaceful conditions; but in 1650 the Jesuit persecution began. Some at least of the pupils were taken back to Port-Royal-inthe-Fields and schools were established at the Grange. Here Lancelot and Nicole were the masters, and here Racine studied, about 1655. During the ten years between 1650 and the final suppression of the schools on March 10, 1660, they were constantly threatened with extinction by their foes the Jesuits.

Du Fossé, the greatest authority on these schools, says the three main points insisted upon were the fear of God, the avoidance of sin, and a downright horror of lying. Racine pays a high tribute of praise to the influence exerted. He says many of the children there trained looked back to Port Royal in after years with much the same holy affection as the Jews felt for Jerusalem. Knowledge was considered to be of no importance as compared with conduct. There was no competition.

As regards the system of teaching, the aim was to make the lessons if possible pleasanter to the children than their play. They were taught to read first in French instead of Latin,—a great innovation. The new method of teaching to read, introduced by Pascal (See p. 90), consisted in first teaching the vowels only; then the consonants, not by their separate names, but only as sounded with the vowels.

Page 89, line 11.

One might well be moved: Mme de Sévigné says: "Port Royal is a regular Thebaïd; it is a paradise; it is a desert in which the whole of christian piety is concentrated; the place is holy ground for a distance of a mile or two about it; there are five or six recluses, known no more to the world, who are living as the penitents of Saint-Jean-Chimaque; the nuns are angels upon earth; Mlle. de Vertus is there ending her life in inconceivable suffering borne with the greatest resignation; all the service of the place, down to the carters, the shepherds, the workmen, is unpretentious. I declare it has been the greatest delight to me to see that divine retreat of which I have heard so much; it is a terrible valley, in which one may well be moved to flee from the wrath to come."

Page 90, line 12.

Members of Port Royal: Diverse as were the individual characteristics and callings of these men,

there was among them a certain similarity of distinction, of thought, and of aim; so that Port Royal came to be identified with a particular school of thought and a particular ideal of life, and its members came to be habitually thought and spoken of collectively as Les Messieurs de Port Royal, a time-honoured phrase which conveys a certain meaning, but for which it is somewhat difficult to find an English equivalent. It might perhaps be best rendered by "The Scholars of Port Royal," as implying something of the moral and intellectual dignity of their position.

Page 90, line 21.

Duc de Luynes: It was about the time of the return of the nuns to Port-Royal-in-the-Fields that the Duchesse de Luynes persuaded her husband to quit the court and seek with her a religious retreat. They built for themselves the small château of Vaumurier, close to the abbey; and also a fine dormitory for the nuns. Other persons of social and religious standing built on to the dwelling place of the community in Paris; and thus in both its homes its hands were strengthened by the presence of capable and influential friends. The Duc de Luynes spent a considerable time at his château, and there gathered round him a number of ecclesiastics, who united to produce the translation of the New Testament here mentioned. It goes by the name of the Mons translation. (See Note, page 87.)

Page 102, line 11.

The Duc de Liancourt: The Duc and Duchesse de Liancourt were renowned for their charity to the poor. When on a visit to M. d'Andilly at Port-Royal-in-the-Fields the idea occurred to them of making a retreat for themselves at the monastery. They accordingly built a suite of rooms in the outer court, opposite the gate of the chapel. (See illustration facing page 144.) The Duc de Liancourt was the first gentleman of the chambers.

Page 103, line 18.

Fact . . right: This is the origin of the famous distinction between de facto and de jure. "It raised," says Racine, "quite a new question: Was the Holy See infallible in matters of fact as well as of right? Father Annat went the length of affirming this. M. de Marca, Bishop of Toulouse, having already in his writings maintained the contrary position, could not agree with Father Annat. Also the first censors of M. Arnauld's Letters had only accused him of being 'rash' in his assertion that the propositions were not to be found in Consistency therefore forbad their em-Jansenius. ploying 'heretical' instead of 'rash.' This difficulty was solved, to his own satisfaction, by M. de Marca. He said the Pope had declared the doctrine of Jansenius heretical; the Jansenists then, as upholders of the doctrine of Jansenius, must be heretical too.

This is pure sophism, since, the Pope not having explained what he understood by the doctrine of

Jansenius, the old question still remains: Does Jansenius' book contain what are known as the five propositions, or does it contain only the doctrine of Saint Augustine? . . . Father Annat and M. de Marca between them drew up the famous formulary."

Page 106, line 20.

Aristotle: Chaucer says of the poor Oxford student that

". . . . him was lever have at his beddes hed Twenty bookes clothed in blake or red Of Aristotle and his philosophie, Than robes rich or fide or sautrie."

Page 131, line 3.

Casuistry: When it had been proved by an ecclesiastic of Rouen and others that Pascal's quotations were substantially correct, the Jesuits' next step was an attempt to justify casuistry. They accordingly produced "The Book of Apology of the Casuists," composed by Father Pirot, the friend of Father Annat and professor of theology at the college of Clermont. They failed to obtain leave to print and publish it; but it was privately circulated. The clergy of Paris procured its condemnation on the ground that it dealt not with points of theology but of morality and encouraged the most shameless wickedness.

Note to the illustration of the Chapel of Port Royal, facing p. 144.

Above the high altar of the chapel is to be seen a painting of the Last Supper. This was the work of Philippe Champagne, who was himself one of the disciples of Port Royal, and whose daughter took the veil there. The painting is now in the Louvre. The figures on either side of the altar piece are the Virgin Mary and St. John the Baptist, also by Champagne. The altar was of plain wood, with a wooden cross suspended above it. Opposite the high altar, on either side the grating, was a door leading into the choir. Through these doors the sacraments were carried to be administered to the sick; hence they were called the doors of the sacraments. Over each of them was a picture; the one of Christ as the good shepherd bringing back the lost sheep on his shoulders and treading upon thorns; the other of a nun crowned with thorns and standing in prayer before a crucifix.

As is seen in the engraving, the chapel contained the tombs of many of the famous recluses.

The following is the epitaph of M. d'Andilly, who was buried in the choir of the chapel:—

"Sub sole vanitas. Supra solem veritas. Here lies Messire Robert Arnauld, Seigneur d'Andilli, in whom were united innocence of character and prudence in affairs; simplicity and an excellent wit. He bore himself as a Christian in any and every fortune and circumstance; he was distinguished by the most scrupulous uprightness and exactitude in the performance of public

duties, which he always placed before his private affairs; he was equal in all his dealings. Enamoured of the idea of religious retreat, which he held to be good for the soul, he renounced the world and the court that he might withdraw to this monastery. Here he lived for thirty years a life of prayer and devotion, beloved by every one and with a heart full of Christian charity towards all men. For his character seemed to be as much conformed to grace as to nature, and wholly inclined to love and be loved. At length, when full of days and in a ripe old age, with no infirmities, but with the wisdom of added years, and what is still better, imbued with the humble and childlike spirit approved by Jesus Christ; scorning the things of earth and intent upon those of eternity; insensible to his extreme pain of body by reason of his joy at the approach of death; secure in his firm faith in God by which in weakness he was made strong and in the midst of death was yet alive-he died, in the eightyfifth year of his age, on the 27th day of September, 1674."-From the 'Nécrologe' of Port Royal.

M. de Saci's epitaph was as follows :--

"Here lies, awaiting the resurrection, Messire Louis Le Maître de Saci who, on account of the singular purity of his character, to which he had added new lustre by the practice of the holiest exercises of penitence, was ordained priest for the service of this monastery. He taught with faith and gentleness that way of God in which he himself unfalteringly walked. A humble disciple of tradition, he drew from this source his knowledge and his religious

faith. Sensibly touched by the oracles of the fathers and by their words, full of the sweet savour of life eternal; an ardent admirer of the wisdom which is of God, and the teachers thereof, he gathered up their precepts with a heart so eager and so well prepared that they passed easily into his life and behaviour. Thence it was that he drew those words of counsel which were no less profitable to him who offered them than to those who listened to them. An enemy to all dispute, he made use of the sciences not for disputation but for the furtherance of holy living; and held of no account such of them as did not serve to this end. So reverential was the manner of his expounding of the scriptures that it spoke no less the respectful submission of a worshipper than the scrupulous exactitude of one who interprets. Secure in his faith, when he was threatened with any adversity God alone was the object of his fear, and not men. And when plunged into adversity, he railed not against men but honoured the dealings of God with him by his patience, rendering him no less thanks when he caused him to feel the severity of his rod than when he was loading him with his consolations. In his joy at being relieved from the charge of souls, under the burden of which he groaned in spirit, he consecrated his new-found repose to the truth. In meditation upon which, and as it were within its embrace, he died on the 4th day of January, 1684. Aged seventy-one years."-From the 'Nécrologe' of Port Royal.

M. de Singlin's epitaph was as follows:

"Here lies the heart of Messire Antoine de Singlin, a confessor of this monastery which he edified by his virtue, his prayers and his preaching; a heart wholly filled with God, and fruitful in its travail for souls, whose salvation was his one and only solicitude; a heart full of humble gratitude and aglow with the fire of charity, ready as of itself to fulfil the commandments of God; a heart which possessed to perfection the art of persuading men; in fine, the heart of the true priest which made itself beloved by reason of its love to all men. So it comes to pass that this friend of the Bridegroom, bringing with him the Brides over whom he has watched with a holy jealousy, will present himself before the Bridegroom when he comes at the sound of the last trumpet, and when there shall be but one Bride even as there is but one Bridegroom."-From the 'Nécrologe' of Port Royal.

Mother Angélique's epitaph was as follows:

"Here lies the heart of the Reverend Mother Marie Angélique Arnauld, who always bore this monastery upon it and contributed far more to the establishing of it before God than those who were its founders. A heart faithful to her heavenly Spouse and broad enough to take in not only one monastery, but the whole church, a life spent in whose service was to her well spent. For never had she made her own interests to consist in anything save what she saw to be also the interests of this Bride of Jesus Christ. A heart that

knew no fear save fears for the Church, and was likewise a stranger to any joys apart from her. She founded our monastery of Port Royal; re-established it; and, a yet greater deed, formed for Jesus Christ her spiritually-begotten daughter, Mother Agnes. The fervour of her charity, manifested abroad as well as at home, made of her a unique Benefactress of diverse Houses belonging to the several Orders. But, whatever God may have wrought by her ministry, all that she did is of less account than what she was."—From the 'Nécrologe' of Port Royal.

Page 145, line 23.

Omnibus Coaches: "Omnibuses, under the name of carrosses à cinq sous (twopenny-halfpenny coaches), were started in Paris in 1662. . . . The idea was Pascal's, but, not being sufficiently wealthy to carry it out unaided, he laid the matter before his friend the Duc de Roannez, who suggested that a company should be formed to start the vehicles. Pascal consented to this being done, and the Duc de Roannez set to work at once to prevail upon members of the aristocracy to take shares in the concern. The Marquis de Sourches and the Marquis de Crénan he induced to take an active part in the management, and, best of all, he obtained from Louis XIV. a decree authorising the establishment of Carrosses à cinq sous. Seven vehicles to carry eight passengers each, all inside, were built, and on March 18, 1662, they began running. The first one was timed to start at seven o'clock in the

morning, but an hour or two earlier a huge crowd had assembled to witness the inauguration ceremony, which was performed by two Commissaires of the châtelet, attired in their official robes. Accompanying them were four guards of the Grand Prévôt, twenty men of the City Archers, and a troop of Cavalry. The procession, on arriving at the line of route, divided into two parts, one Commissaire and half of the attendants proceeded to the Luxembourg and others to the Porte St. Antoine. At the latter place three of the twopenny-halfpenny coaches were stationed, the other four being at the Luxembourg. Each Commissaire then made a speech, in which he pointed out the boon that carrosses à cinq sous would be to the public, and laid great stress on the fact that they would start punctually at certain times, whether full or empty. . . At the conclusion of his address, the Commissaire commanded the coachmen to advance, and after giving them a few words of advice and caution, presented each one with a long blue coat, with the City arms embroidered on the front in brilliant colours. . . . It need scarcely be said that there was no lack of passengers. . . . Paris in short went mad over the carrosses à cinq sous, and the excitement soon spread to the suburbs, sending their inhabitants flocking to the city to see the new vehicles. . . . The king himself had a ride in one coach, and the aristocracy and wealthy classes hastened to follow his example, struggling with their poorer brethren to obtain a seat. . . other routes were opened in less than four months, but at last the fashionable craze came to an end, and as soon as the upper classes ceased to patronise the new coaches, the middle and lower classes found that it was cheaper to walk than to ride. The result was that Pascal, who died only five months after the coaches began running, lived long enough to see the vehicles travelling to and fro half, and sometimes quite, empty.

For many months after Pascal's death the coaches lingered on, but every week found them less patronised, and eventually they were discontinued. They had never been of any real utility, and were regarded by the public much in the same light as we regard a switchback railway.

After the failure of the carrosse à cinq sous, a century and a half elapsed before vehicles of the omnibus class were again tried in Paris. . . .

M. Baudry (a retired military officer) was in 1827 the proprietor of some hot-water baths in the suburbs of Nantes, and for the convenience of his patrons ran a vehicle at fixed hours to and from the town. This coach, which was similar in build to the Parisian ones, he named the *Voiture des Bains de Richsbourg*, but quickly came to the conclusion that the title was too long, and therefore endeavoured to think of a more suitable one.

It happened that just at that time a local grocer named Omnès caused considerable amusement in the town by painting over his shop 'Omnès Omnibus.' No sooner did Baudry see this, than he declared that he had found the very word which he required, and straightway named his vehicle 'L'Omnibus.'"—From "Omnibuses and Cabs, their origin and history," by H. C. Moore.

Page 147, line 26.

Roulette: The roulette or cycloïde is the name given to the curve described in space by a point on the circumference of a wheel during one revolution of the wheel upon the ground.

This curve was wholly unknown to the ancients. Pascal remarks upon the strangeness of this fact, considering that after the straight line and the circle there is no line so common or so often within the observation of every one.

M. Bertrand says, writing of the roulette curve: "Each of the stars is a sun surrounded, so everything leads us to believe, by planets invisible to our feeble eyes and imperfect instruments. One of these planets describes a circle round its sun, and suppose this sun which by reason of its immeasurable distance appears to us to be fixed is in reality moving in a straight line, then the planetary orbit will progress like the wheel of an immense car, and the planet which traverses it will, granted the right relations of speed, describe in space a cycloïde."

Pascal says: "The late Père Mersenne, Minime, was the first to discover this curve, about the year 1615, when he was considering the roulement des roues (wheeling of wheels); this was why he called it La Roulette. He wanted at once to learn its nature and qualities. But this was beyond him. For while he had a special talent for putting fine questions, in which perhaps he had not his equal (See note, p. 6), he was not quite so ready when it came to answering them.

Nevertheless, although honour properly belongs to the solver of a question, yet it is true that we do owe something to him in that he has afforded occasion for more than one valuable discovery, which perchance would never have been made had he not directed the attention of the savants to the subject."

When once this curve had been brought under the notice of scientific men the problems connected with it were studied by several of them, notably Galileo and Roberval. After these had been solved there still remained others yet more abstruse. It was these further problems which became clear to Pascal during his sleepless hours and in connection with which he started his famous competition.

Page 169, line 3.

You, Miton: In thus apostrophising the easy-going egoist, Pascal is perhaps replying directly to this saying of Miton: "In effect, the easiest way of securing undisturbed happiness for ourselves is to see to it that others share it with us. For then all obstacles are removed and everyone is ready to take us by the hand. It is this contriving of happiness for ourselves that really constitutes honnêteté. So that the latter is, strictly speaking, self-love well regulated." Pascal went so far as to say that the very use of the pronouns 'I' and 'me' was offensive; that Christianity did away with them altogether, and the laws of good breeding kept them in the background.

Page 193, line 18.

Threefold lust: the lust of the flesh, and the lust of the eyes, and the pride of life. Sainte Beuve says: "Jansenius gives the three kinds of lust or concupiscence as, firstly, sensual passion; secondly, the passion for knowledge or research; thirdly, the passion for preeminence. He describes with much penetration the nature of the second, the love of knowledge for its own sake, libido oculorum, 'the lust of the eyes,' the eyes being the organ by which we look into things. All men of learning, all investigators he includes as falling under this temptation, and the wisest are the most prone to it, even as the wise Ulysses was fain to listen to the song of the Sirens who 'knew all things . . . and all that should hereafter be upon the fruitful earth.' The third kind of lust is the most intellectual of the three. This is the ambitious love of excelling, of being first, of becoming as God."

Page 198, line 21.

Petites Lettres: The original title in full was Lettres écrites à un Provincial par un de ses amis (Letters written to a Provincial by one of his friends). This was soon shortened into Lettres Provinciales (Provincial Letters); then into Provinciales; and later the book was known under the almost endearing title of Petites Lettres.

CHRONOLOGICAL TABLE.

- 1618. Étienne Pascal marries Antoinette Bégon.
- 1620. January 3. Gilberte Pascal (Mme. Périer) born.
- 1623. June 19. Blaise Pascal born.
- 1625. October 4. Jacqueline Pascal (Sister Euphémie) born.
- 1626. Death of Antoinette Bégon, Pascal's mother, aged twenty-eight years.
- 1631. Étienne Pascal resigns his post as Vice-President of the *Cour des Aides* at Clermont, and settles in Paris.
- 1635. Pascal studies geometry by himself.
- 1638. Death of Jansenius.
- 1639—1640. Pascal works at his treatise on Conic Sections.
- 1640—1642. Pascal works at his arithmetical machine. First serious breakdown in his health. Posthumous publication of the Augustinus of Jansenius.
- 1641. Gilberte Pascal marries her cousin, Florin Périer.
- 1643. Antoine Arnauld publishes the Fréquente Communion and the Théologie Morale des Jésuites.
- 1645. Pascal writes a dedicatory letter to the Chancellor Séguier, and an *Advertisement* addressed to those who make use of his arithmetical machine.
- 1646. January. Étienne Pascal dislocates his thigh.
 M. de la Bouteillerie and M. des Landes "convert" Pascal. Pascal "converts" Jacqueline. She refuses the hand of a councillor.
 - April. Birth of Marguérite Périer, Pascal's niece and god-daughter.

October-December. Pascal and M. Petit repeat at Rouen the experiments of Torricelli.

Pascal "converts" M. and Mme. Périer, who are visiting Rouen.

1647. The affair with Brother Saint Ange.

> Pascal is attacked by paralysis. He goes to Paris to consult the doctors.

> September 23. Interview between Descartes and Pascal in Paris.

> October 4. Pascal publishes his Nouvelles expériences touchant le vide.

> The end of the year. Controversy with the Jesuit Père Noël on the subject of Vacuum.

- 1647—1651. Pascal at work upon a Treatise on Vacuum.
- 1647!—1648! Pascal writes the Priére pour demander à Dieu le bon usage des maladies.
- 1648. Pascal comes for the first time into direct contact with Port Royal.

September 19. Experiments made by M. Périer on the Puy-de-Dôme, at Pascal's request.

September-October. Pascal's own experiments at the Tour St. Jacques.

Pascal publishes the result of his experiments on the equilibrium of liquids.

May. Etienne Pascal, Blaise, and Jacqueline go 1649. to Auvergne.

> July. The Jansenist Propositions brought before the Faculty of Theology by Nicolas Cornet, the President.

November? Pascal leaves Auvergne.

1651. Pascal becomes intimate with the Duc de Roannez.

July and August. Correspondence with M. de Ribeyre.

September 24. Death of Étienne Pascal.

October 17. Pascal's letter on the death of his father.

Division of the family property.

1652. January 4. Jacqueline enters the convent in spite of her brother's opposition.

May. Jacqueline takes the veil.

June. Pascal visits Poitou with the Duc de Roannez and Méré.

1652—1653. Pascal visits Auvergne.
Writes the Discours sur les passions de l'amour.

1653. January. The Jesuits publish their Almanach de la déroute et de la confusion des Jansénistes.

Disagreement of Pascal and Mme. Périer with Jacqueline on the subject of her dowry.

Pascal returns to Paris.

May 31. The five Propositions condemned by the Pope.

Pascal makes a donation to Port Royal.

June. Jacqueline takes the vows.

Pascal writes various essays on the subject of atmospheric pressure.

He pays frequent visits to Jacqueline.

1654. Pascal writes treatises on the Arithmetical triangle and on Numerical orders.

May. The Bishops of France, with the exception of four, condemn the five Propositions.

November. Pascal hears M. Singlin preach, and determines to renounce the world.

Pascal's night of spiritual ecstasy.

1655. January. Pascal enters Port Royal.

Absolution refused to M. de Liancourt, a Jansenist. February and July. Arnauld publishes his famous Letters.

December. Trial of Arnauld at the Sorbonne.

1655? Pascal's interview with M. de Saci.

1656. January 14. Arnauld condemned by the Sorbonne and expelled.

January 23. The first Provinciale appears.

March 24. Miracle of the Sacred Thorn.

The Jesuits reply to the Provinciales.

1657. March. The Bishops of France prepare the first Formulary.

Pascal's correspondence with Mlle. de Roannez.

September 23. The Provinciales condemned by the Congrégation de l'Index.

1657—1662. Pascal works at his Apologie pour la religion.

1658. Pascal arranges the competition for the solving of the Roulette I roblem, and writes various papers on the same subject.

1658-1659. Letters of Amos Dettonville.

Pascal makes known to his friends the plan of his *Apologie*.

1661. Publication of the final Formulary which the Ecclesiastics were requested to sign.

Novices withdrawn from Port Royal.

The Mandement of the Vicars-general.

Jacqueline's letter on the subject of the signature. Death of Jacqueline.

1662. August 19. Death of Blaise Pascal.

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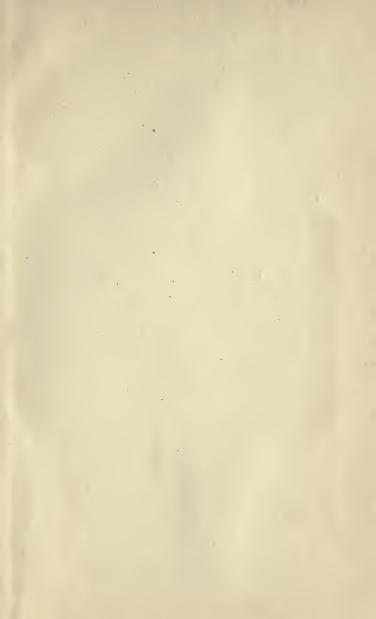
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