

The history of the experiments in Spontaneous Generation is recounted ; from their failure it is inferred that "life can come only from the touch of Life," and it is laid down that this law must extend from the natural into the spiritual world. This is the new foundation for religious faith, which to the discoverer seems adamant, but to us, we confess, appears of a much more friable nature. In the first place the negative result of the experiments in Spontaneous Generation is not a demonstration of the impossibility of the process, but only of the inability of science with its present resources to detect and exhibit it. In the second place, supposing it to be proved that Spontaneous Generation has now ceased, it does not follow that Life may not have been brought into existence by material conditions which have now passed away, and have been thenceforth propagated by way of Biogenesis, in which case its origin would be just as material as if it were coming daily out of the crucible of science. "I affirm that no shred of trustworthy experimental testimony exists to prove that life in our day has ever appeared independently of antecedent life." These are the words of Tyndall upon which Mr. Drummond rests his case. It will be observed that they import no more than the failure of experiments in Spontaneous Generation up to the present time, and that they are limited by the qualification "in our day." If we accept, and Mr. Drummond does accept, the theory of Evolution, can we confidently assume, can we even rationally suppose, that an "impassable gulf," an "impenetrable wall," separates the most lively kind of matter from the lowest form of vegetable life, and that nothing but a living antecedent inserted by a special fiat of Creative Power could generate the life of the lichen? Is it not much more natural to suppose that in this stage of evolution, as in the rest, the transition was gradual; that the course of development was unbroken, and that the original nebula, or whatever the raw material of the universe was, contained among other things the potency of life? That the truth of religion depended on the result of a physical experiment, so that if an infusion of hay sealed up in a bottle had given birth to rudimentary animalcules, our faith in God and Christianity would have collapsed, is surely a startling announcement and one which must make us still regard infusions of hay with a certain amount of awe and misgiving. Mr. Drummond constantly speaks of Spiritual Life as a thing not less distinct from moral life than the organic is from the inorganic, and as having an existence apart with special laws of its own; but here, to say the least, we feel the need of precise statement and definition. It may be added that if there is really an impassable barrier, if there is really a door which none can open, between the moral and the spiritual, so that by no effort or spontaneous process of any sort can a man become spiritually minded without being literally born anew from a spiritual life antecedent, we are landed apparently in Predestinarianism of the most rigid kind and in the hopeless contradictions which arise between Predestinarian religion and morality. That the character which a man attains by effort is not growth is supported by no better argument than that growth must be "something mysterious." But what mystery is there in the growth of a radish or an oyster which does not equally attach to the growth of man in excellence by moral effort? Throughout this treatise, as it seems to us, the doctrine of sudden conversion is taken for granted and made, under various disguises, to prove itself. When Christ bids us consider the lilies how they grow, he surely does not mean that we are to renounce effort and trust for the attainment of excellence to supernatural intervention; if he did he would contradict his own teaching. He means that the raiment of beauty in which Nature clothes the lily rebukes the fretful anxiety in which we toil and spin. Not by any *tour de force* of this kind, it is to be feared, will science be reconciled with religion.

#### OLD BOUNDARY DISPUTES.\*

OUR thanks are due to Sir Francis Hincks for breaking the monotony of the tirade in which Canadian writers had hitherto denounced the Ashburton settlement of the north-east boundary question. Objectors forget or do not care to remember that neither England nor the United States was in possession of evidence by which it could make out its claim, and that in compromise alone could a settlement be found. The great merit of the Ashburton treaty was that it saved two kindred nations from the danger of war. The seven millions of acres of land in dispute were divided as nearly as possible between the two claimants. England not only got more land than the award of the king of the Netherlands gave her, but what was more important, she got a frontier which, instead of overlooking the citadel of Quebec, did not approach nearer than within sixty miles of it, and the line where it was parallel with the St. Lawrence receded much farther from that river than the line of the award which Lord

Palmerston, when in power, had accepted, and which the United States Senate had rejected on the ground, which England did not contest, that the arbitrator had exceeded his authority. But the acceptance of the award of the king of the Netherlands did not prevent Lord Palmerston, out of office, denouncing the settlement of the Treaty of Washington, 1842, as a "capitulation." The cry once set up any parrot could repeat. There has been little more than repetition of old objections even by the ablest of recent critics. The dispute arose over the interpretation of Article II. of the treaty of 1783: "from the north-west angle of Nova Scotia, viz., that angle which is formed by a line drawn due north from the source of the St. Croix to the highlands; along the said highlands which divide those rivers which empty themselves into the River St. Lawrence, from those which fall into the Atlantic Ocean, to the north westernmost head of the Connecticut River." The bifurcation of the St. Croix and the existence of two ranges of highlands furnished the materials for the dispute; each nation insisted that that source of the St. Croix and that range of highlands which would give it most territory was the true source and the true range. On the starting-point—the true source of the St. Croix—the Commissioners decided against England. Sir Francis Hincks quotes what he supposes to be Mr. Fleming's objection that "from this fatal error arose all the subsequent difficulties." But Mr. Fleming borrowed his objection and altered the words in which it was originally made. In a pamphlet published soon after the treaty was made we read: "From this erroneous though well-meant decision all the subsequent embarrassments arose."

With one ingenious exception, soon to be noticed, Sir Francis Hincks has not presented the case in a novel light. He follows the general line taken by American writers in asserting the identity of the line of the treaty with the line of the Quebec Act. But reasons for the identity of the two lines would not be so strong as Sir Francis insists on making them. He thinks it out of the question that England, when she was ceding an extensive territory in the west, which had hitherto been connected with Canada, should insist on a new line in the east by which her frontier was to be extended: but England would naturally be anxious to obtain a line of demarcation which would make communication between Canada and New Brunswick easy; and, though the critics who contend that the line of the treaty was a new line do not prove their case, those who take the opposite view do not appear to much better advantage. In fact without recourse to maps, about which some mystery exists, no absolute proof is possible.

Over the concealment by the American negotiator, Mr Webster, of the Franklin map with its red line of boundary, denunciation has waxed hottest. Jared Sparks claimed to have discovered in the French archives the original map presented by Dr. Franklin to Count de Vergennes, six days after the preliminaries of the treaty of peace and independence were signed. On this map, it is alleged, the true boundary line was marked, and that this line fully bears out the British pretensions. Sir Francis is of opinion that the object Franklin had in sending this map to the Minister of Louis XVI. was "to throw dust in his eyes." But the difficulty cannot be got rid of by the aid of this hypothesis. It is certain from a published letter of his, that Dr. Franklin sent to Mr. Jefferson, in October, 1790, a map with the true boundary traced on it; and Mr. Reves, in the secret debate on the treaty of 1842 in the Senate of the United States, alleged that this map sustained "by the most precise and remarkable correspondence in every feature the map communicated by Mr. Sparks," that it contained "a strong red line indicating the limits of the United States according to the treaty of peace, and coinciding minutely and exactly with the boundary traced on the map of Mr. Sparks." The red line was traced by Dr. Franklin. There was on this map the ordinary dotted line of the proclamation of 1763. Benton, who exhibited this map, strange to say, wished to throw doubt on the authenticity of that discovered by Mr. Jared Sparks; and with this view he drew attention to the dotted line, while Mr. Reves insisted on the red line as the one that should govern. The map was by D'Anville, and was printed in 1746, the dotted line having been drawn thirty-seven years before the treaty was made. The authenticity of the red line, though disputed, is, in this state of the facts, difficult to impeach. Judge Story and Dr. Channing were both convinced of its genuineness; Mr. Reves used it to compel the assent of the Senate to the Ashburton treaty. But Mr. Preble, one of the seven commissioners appointed by the States of Maine and Massachusetts to watch the negotiations between Mr. Webster and Lord Ashburton, convinced of the identity of the line of the treaty with that of the proclamation, refused to put faith in the Franklin map. Whatever may be the truth with regard to it, we cannot think that the theory started by Sir Francis Hincks will be accepted.

\* The Boundaries formerly in Dispute between Great Britain and the United States. A lecture by Sir Francis Hincks, K.C.M.G., C.B.