

The Open Court.

A WEEKLY JOURNAL

Devoted to the Work of Conciliating Religion with Science.

No. 268. (VOL. VI.—41.)

CHICAGO, OCTOBER 13, 1892.

{ Two Dollars per Year.
Single Copies, 5 Cents.

COPYRIGHT BY THE OPEN COURT PUBLISHING CO.—Reprints are permitted only on condition of giving full credit to Author and Publisher.

THE CRITIC OF ARGUMENTS.

BY CHARLES S. PEIRCE.

II. THE READER IS INTRODUCED TO RELATIVES.

There is a melancholy book entitled "Astronomy Without Mathematics." The author, an F. R. A. S., presumably knew something of astronomy; therefore, I pity him. I think I hear his groans and maledictions, as he wrote the book, over the initial lie to which he had committed himself, that it is possible to convey any idea of the science of astronomy without making use of mathematics. He could tell roughly how the planets go round the sun, and make his readers think they knew what the error of the ancient system was (namely, that all went round the earth,—really, no error), and could set down surprising figures about the stars (beaten, however, by Buddhistic numbers both in magnitude and in intellectual value). A book so made might well have been called "The Story of the Heavens" (in anticipation of Dr. Ball's splendid volume, which, promising little, performs much), but it was not the "astronomy" stipulated for in the title page. When, in a neighbor's house yesterday, my eye lit upon that book, I shuddered. For I too have engaged myself by the title of these papers to produce something of solid value to my readers; but, thank God, I have not agreed to do it without the use of mathematics. I came home and pondered; and have decided that, in order to fulfil legitimate expectations, I must begin with a few chapters upon certain dry and somewhat technical matters that underlie the more interesting questions concerning reasoning. Do not fear a repetition of matter to be found in common text-books. I shall suppose the reader to be acquainted with what is contained in Dr. Watts's "Logick," a book very cheap and easily procured, and far superior to the treatises now used in colleges, being the production of a man distinguished for good sense. I mean to bring out a reprint of it, with extensive annotations, whenever I can find an eligible publisher. Though a life-long student of reasonings, I know no way of giving the reader the benefit of what I ought to have learned, without asking him to go through with some irksome preliminary thinking about relations.

For this subject, although always recognised as an integral part of logic, has been left untouched on account of its intricacy. It is as though a geographer, finding the whole United States, its topography, its population, its industries, etc., too vast for convenient treatment, were to content himself with a description of Nantucket. This comparison hardly, if at all, exaggerates the inadequacy of a theory of reasoning that takes no account of relative terms.

A *relation* is a fact about a number of things. Thus the fact that a locomotive blows off steam constitutes a relation, or more accurately a relationship (the *Century Dictionary*, under *relation*, 3, gives the terminology. See also *relativity*, etc.) between the locomotive and the steam. In reality, every fact is a relation. Thus, that an object is blue consists of the peculiar regular action of that object on human eyes. This is what should be understood by the "relativity of knowledge." Not only is every fact really a relation, but your thought of the fact *implicitly* represents it as such. Thus, when you think "this is blue," the demonstrative "this" shows you are thinking of something just brought up to your notice; while the adjective shows that you recognise a familiar idea as applicable to it. Thus, your thought, when explicated, develops into the thought of a fact concerning this thing and concerning the character of blueness. Still, it must be admitted that, antecedently to the unwrapping of your thought, you were not actually thinking of blueness as a distinct object, and therefore were not thinking of the relation as a relation.* There is an aspect of every relation under which it does not appear as a relation. Thus, the blowing off of steam by a locomotive may be regarded as merely an action of the locomotive, the steam not being conceived to be a thing distinct from the engine. This aspect we enphrase in saying, "the engine blows."

Thus, the question whether a fact is to be regarded as referring to a single thing or to more is a question of the form of proposition under which it suits our purpose to state the fact. Consider any argument con-

* In this connection, see James's, *Principles of Psychology*, Vol. 1, pp. 237-271; *Briefer Course*, pp. 160 et seqq. James is no logician, but it is not difficult to trace a connection between the points he makes and the theory of inference.

cerning the validity of which a person might conceivably entertain for a moment some doubt. For instance, let the premise be that from either of two provinces of a certain kingdom it is possible to proceed to any province by floating down the only river the kingdom contains, combined with a land-journey within the boundaries of one province; and let the conclusion be that the river, after touching every province in the kingdom, must again meet the one which it first left. Now, in order to show that this inference is (or that it is not) absolutely necessary, it is requisite to have something analogous to a diagram with different series of parts, the parts of each series being evidently related as those provinces are said to be, while in the different series something corresponding to the course of the river has all the essential variations possible; and this diagram must be so contrived that it is easy to examine it and find out whether the course of the river is in truth in every case such as is here proposed to be inferred. Such a diagram has got to be either auditory or visual, the parts being separated in the one case in time, in the other in space. But in order completely to exhibit the analogue of the conditions of the argument under examination, it will be necessary to use signs or symbols repeated in different places and in different juxtapositions, these signs being subject to certain "rules," that is, certain general relations associated with them by the mind. Such a method of forming a diagram is called *algebra*. All speech is but such an algebra, the repeated signs being the words, which have relations by virtue of the meanings associated with them. What is commonly called *logical algebra* differs from other formal logic only in using the same formal method with greater freedom. I may mention that unpublished studies have shown me that a far more powerful method of diagrammatisation than algebra is possible, being an extension at once of algebra and of Clifford's method of graphs; but I am not in a situation to draw up a statement of my researches.

Diagrams and diagrammatoidal figures are intended to be applied to the better understanding of states of things, whether experienced or read or imagined. Such a figure cannot, however, show what it is to which it is intended to be applied; nor can any other diagram avail for that purpose. The where and the when of the particular experience, or the occasion or other identifying circumstance of the particular fiction to which the diagram is to be applied, are things not capable of being diagrammatically exhibited. Describe and describe and describe, and you never can describe a date, a position, or any homaloidal quantity. You may object that a map is a diagram showing localities; undoubtedly, but not until the law of the projection is understood, nor even then unless at least two points on the map are somehow previously identified with

points in nature. Now, how is any diagram ever to perform that identification? If a diagram cannot do it, algebra cannot: for algebra is but a sort of diagram; and if algebra cannot do it, language cannot: for language is but a kind of algebra. It would, certainly, in one sense be extravagant to say that we can never tell what we are talking about; yet, in another sense, it is quite true. The meanings of words ordinarily depend upon our tendencies to weld together qualities and our aptitudes to see resemblances, or, to use the received phrase, upon associations by *similarity*; while experience is bound together, and only recognisable, by forces acting upon us, or, to use an even worse chosen technical term, by means of associations by *contiguity*. Two men meet on a country road. One says to the other, "that house is on fire." "What house?" "Why, the house about a mile to my right." Let this speech be taken down and shown to anybody in the neighboring village, and it will appear that the language by itself does not fix the house. But the person addressed sees where the speaker is standing, recognises his *right* hand side, (a word having a most singular mode of signification,) estimates a *mile*, (a length having no geometrical properties different from other lengths,) and looking there, sees a house. It is not the language alone, with its mere associations of similarity, but the language taken in connection with the auditor's own experiential associations of contiguity, which determines for him what house is meant. It is requisite then, in order to show what we are talking or writing about, to put the hearer's or reader's mind into real, active connection with the concatenation of experience or of fiction with which we are dealing, and, further, to draw his attention to, and identify, a certain number of particular points in such concatenation. If there be a reader who cannot understand my writings, let me tell him that no straining of his mind will help him: his whole difficulty is that he has no personal experience of the world of problems of which I am talking, and he might as well close the book until such experience comes. That the diagrammatisation is one thing and the application of the diagram quite another, is recognised obscurely in the structure of such languages as I am acquainted with, which distinguish the *subjects* and *predicates* of propositions. The subjects are the indications of the things spoken of, the predicates words that assert, question, or command whatever is intended. Only, the shallowness of syntax is manifest in its failing to recognise the impotence of mere words, and especially of common nouns, to fulfil the function of a grammatical subject. Words like *this*, *that*, *lo*, *hallo*, *hi there*, have a direct, forceful action upon the nervous system, and compel the hearer to look about him; and so they, more than ordinary words, contribute towards indicating what the speech

is about. But this is a point that grammar and the grammarians (who, if they are faithfully to mirror the minds of the language-makers, can hardly be scientific analysts) are so far from seeing as to call demonstratives, such as *that* and *this*, pronouns,—a literally preposterous designation, for nouns may more truly be called pro-demonstratives.

If upon a diagram we mark two or more points to be identified at some future time with objects in nature,* so as to give the diagram at that future time its meaning; or if in any written statement we put dashes in place of two or more demonstratives or pro-demonstratives, the professedly incomplete representation resulting may be termed a *relative rhema*. It differs from a relative *term* only in retaining the "copula," or signal of assertion. If only one demonstrative or pro-demonstrative is erased, the result is a *non-relative rhema*. For example, "— buys — from — for the price —," is a relative rhema; it differs in a merely secondary way from

"— is bought by — from — for —,"

from "— sells — to — for —,"

and from "— is paid by — to — for —."

On the other hand, "— is mortal" is a non-relative rhema.

A rhema is somewhat closely analogous to a chemical atom or radicle with unsaturated bonds. A non-relative rhema is like a univalent radicle; it has but one unsaturated bond. A relative rhema is like a multivalent radicle. The blanks of a rhema can only be filled by terms, or, what is the same thing, by "something which" (or the like) followed by a rhema; or, two can be filled together by means of "itself" or the like. So, in chemistry, unsaturated bonds can only be saturated by joining two of them, which will usually, though not necessarily, belong to different radicles. If two univalent radicles are united, the result is a saturated compound. So, two non-relative rhemas being joined give a complete proposition. Thus, to join "— is mortal" and "— is a man," we have "*X* is mortal and *X* is a man," or some man is mortal. So likewise, a saturated compound may result from joining two bonds of a bivalent radicle;† and, in the same way, the two blanks of a dual rhema may be joined to make a complete proposition. Thus, "— loves —," "*X* loves *X*," or something loves itself. A univalent radicle united to a bivalent radicle gives a univalent radicle (as H-O-); and, in like manner, a non-relative rhema, joined to a dual rhema, gives a non-relative rhema. Thus, "— is mortal" joined to "— loves—" gives "— loves something that is mortal," which is a

non-relative rhema, since it has only one blank. Two, or any number of bivalent radicles united, give a bivalent radicle (as-O-O-S-O-O-), and so two or more dual rhemata give a dual rhema; as "— loves somebody that loves somebody that serves somebody that loves —." Non-relative and dual rhemata only produce rhemata of the same kind, so long as the junctions are by twos; but junctions of triple rhemata (or junctions of dual rhemata by threes), will produce all higher orders. Thus, "— gives — to —" and "— takes — from —," give "— gives — to somebody who takes — from —," a quadruple rhema. This joined to another quadruple rhema, as "— sells — to — for —," gives the sextuple rhema "— gives — to somebody who takes — from somebody who sells — to — for —." Accordingly, all rhemata higher than the dual may be considered as belonging to one and the same order; and we may say that all rhemata are either singular, dual, or plural.

Such, at least, is the doctrine I have been teaching for 25 years, and which, if deeply pondered, will be found to enwrap an entire philosophy. Kant taught that our fundamental conceptions are merely the ineluctable ideas of a system of logical forms; nor is any occult transcendentalism requisite to show that this is so, and must be so. Nature only appears intelligible so far as it appears rational, that is, so far as its processes are seen to be like processes of thought. I must take this for granted, for I have no space here to argue it. It follows that if we find three distinct and irreducible forms of rhemata, the ideas of these should be the three elementary conceptions of metaphysics. That there are three elementary forms of categories is the conclusion of Kant, to which Hegel subscribes; and Kant seeks to establish this from the analysis of formal logic. Unfortunately, his study of that subject was so excessively superficial that his argument is destitute of the slightest value. Nevertheless, his conclusion is correct; for the three elements permeate not only the truths of logic, but even to a great extent the very errors of the profounder logicians. I shall return to them next week. I will only mention here that the ideas which belong to the three forms of rhemata are firstness, secondness, thirdness; firstness, or spontaneity; secondness, or dependence; thirdness, or mediation.

But Mr. A. B. Kempe, in his important memoir on the "Theory of Mathematical Forms,"* presents an analysis which amounts to a formidable objection to my views. He makes diagrams of spots connected by lines; and it is easy to prove that every possible system of relationship can be so represented, although he does not perceive the evidence of this. But he

* *Nature*, in connection with a picture, copy, or diagram, does not necessarily denote an object not fashioned by man, but merely the object represented, as something existing apart from the representation.

† Thus, CO, which appears as such a radicle in formic acid, makes of itself a saturated compound.

* *Philosophical Transactions* for 1886. No logician should fail to study this memoir.

shows (§ 68) that every such form can be represented by spots indefinitely varied, some of them being connected by lines, all of the same kind. He thus represents every possible relationship by a diagram consisting of only *two* different kinds of elements, namely, spots and lines between pairs of spots. Having examined this analysis attentively, I am of opinion that it is of extraordinary value. It causes me somewhat to modify my position, but not to surrender it. For, in the first place, it is to be remarked that Mr. Kempe's conception depends upon considering the diagram purely in its self-contained relations, the idea of its representing anything being altogether left out of view; while my doctrine depends upon considering how the diagram is to be connected with nature. It is not surprising that the idea of thirdness, or mediation, should be scarcely discernible when the representative character of the diagram is left out of account. In the second place, while it is not in the least necessary that the spots should be of different kinds, so long as each is distinguishable* from the others, yet it is necessary that the connections between the spots should be of two different kinds, which, in Mr. Kempe's diagrams, appear as lines and as the absence of lines. Thus, Mr. Kempe has, and must have, three kinds of elements in his diagrams, namely, one kind of spots, and two kinds of connections of spots. In the third place, the spots, or units, as he calls them, involve the idea of firstness; the two-ended lines, that of secondness; the attachment of lines to spots, that of mediation.

My position has been modified by the study of Mr. Kempe's analysis. For, having a perfect algebra for dual relations, by which, for instance, I could express that "*A* is at once lover of *B* and servant of *C*," I declared that this was inadequate for the expression of plural relations; since to say that *A* gives *B* to *C* is to say more than that *A* gives something to *C*, and gives to somebody *B*, which is given to *C* by somebody. But Mr. Kempe (§ 330) virtually shows that my algebra is perfectly adequate to expressing that *A* gives *B* to *C*; since I can express each of the following relations:

- In a certain act, *D*, something is given by *A*;
- In the act, *D*, something is given to *C*;
- In the act, *D*, to somebody is given *B*.

This is accomplished by adding to the universe of concrete things the abstraction "this action." But I remark that the diagram fails to afford any formal representation of the manner in which this abstract idea is derived from the concrete ideas. Yet it is precisely in such processes that the difficulty of all difficult reasoning lies. We have an illustration of this in the circumstance that I was led into an error about the capa-

bility of my own algebra for want of just the idea that process would have supplied. The process consists, psychologically, in catching one of the transient elements of thought upon the wing and converting it into one of the resting places of the mind. The difference between setting down spots in a diagram to represent recognised objects, and making new spots for the creations of logical thought, is huge. To include this last as one of the regular operations of logical algebra is to make an intrinsic transmutation of that algebra. What that mutation was I had already shown before Mr. Kempe's memoir appeared.

THE PSYCHOLOGY OF BUDDHISM.

BY PROF. H. H. WILLIAMS.

[CONCLUDED.]

What was this knowledge? It is this: Physical life and suffering are one thing. To be born is to suffer. The cause of suffering is the cause of physical existence. And the cause of physical existence is desire. Why does the soul desire? It is through ignorance. Ignorance, not knowing, is a positive thing, a power. This can be displaced by knowledge, a positive thing, a power. Knowledge is the only thing that will overcome ignorance. It will uproot the cause of desire. Knowledge thus destroys the cause of physical existence. It breaks the ceaseless chain of transmigration. Knowledge is salvation.

From the viewpoint of Gotama, this solution was the only one possible. For to him, the cause of the child is not the parents. These are only incidents in a process. The cause of the child lies in the child itself, in the ego, as we say. The physical form is but one of a thousand others, and the essential child has persisted through all these physical forms. What then is there within the child itself that could be the cause of its physical existence? This was Gotama's problem. And the deepest answer he could give was the one he gave, viz., desire. (Desire is used in an inclusive sense.) He reached this doctrine through an analysis of conduct and easily identified the ground of conduct with the ground of physical existence, being a Hindoo.

The third crisis involves the resolution to preach. Gotama had won his own salvation. The knowledge that brought him salvation made him Buddha. His doctrine was won at high cost. It was not easy to be understood. Should he preach it to men? He debated as follows: "This profound truth, I have, after 'many struggles, perceived; a truth difficult to discern; a truth difficult to understand; a truth fraught 'with blessings; supreme, transcending all thought; 'a truth, teeming with meaning; one that the sage 'alone can grasp. The race of man is of the earth: 'there it moves and has its being, there is its abode,

* I use this word in its proper sense, and not to mean unlike, as Mr. Kempe does.

"and there it finds its pleasures. And by this race, which is of the earth, whose abode is on the earth, and which finds on the earth his pleasures, this truth will hardly be comprehended—this law of causality, this law of the concatenation of causes and effects. And so, too, will it be difficult for it to comprehend the final state of peace and rest of all forms, the surrender of all things earthly, the quenching of desire, the ceasing of wants, the termination—Nirvana. If, then, I announce my doctrine to the world and am not understood, I shall only bring upon myself exhaustion and pain. . . . As the Enlightened One thus reasoned, his heart was disposed to rest forever in peace and not to preach his doctrines."

Gotama was in the act of having life, of abandoning men to their weary fate, of realising Nirvana at once, when the God, Sahampati, interposed. He assured Gotama, on bended knee, that the fate of the world was involved in this resolution. Sahampati induced Gotama to preach his doctrine. Buddha began promptly to preach the holy truth and to gather disciples about him.

The Hindoo could see no ground in the facts themselves for this resolution of Buddha, therefore he ascribed it to the gods. But there must be a ground, a missionary basis, in the facts. Where is it? Why did Buddha preach his doctrine? What is the source of his missionary impulse? There seems to be nothing in the fact that desire is the root of physical existence to develop a missionary. Nor was there anything in the habits or traditions of Indian life to call out such activity. In fact the ascetic is the very opposite of the missionary. The entire power of the Indian habit of mind moved in the direction of the retiring, passive life. The missionary idea is foreign to the Indian type. The Brahmin lived and loved a lonely life. He had no interest in any other people than his own. Nor was his state or his family the object of deep interest to him. He, like his people, preferred to work out his own salvation. Notwithstanding these facts, we find the missionary idea deep rooted in the spirit of Buddhism. Buddhism has lived up to this idea. It has spread, and rapidly too, over a large part of the world. If then this idea does not lie in the Indian type, nor in the Indian tradition, whence came it? How did it secure and hold so deep a place in the Buddhistic religion? This question is not theological, it is purely psychological. An idea makes its appearance at a given time, and makes itself felt in the motives of men: the birth of this idea is a question for the psychologist. It is then the birth of this missionary idea in the consciousness of Buddha that we are concerned with.

No animal is a missionary. The savage is not a missionary. The Brahmin is not a missionary. The

Buddhist is a missionary. What makes the difference? The life of the animal is one of physical relations only. The physical relation is definite and narrow. There is nothing general in it. The fact that John is born of Mrs. Smith cannot be the ground of a kind impulse towards Mrs. Jones. And if John leads a physical life he will be conscious of the physical relation. The physical relation is binding in a definite direction and stops at a given point. Hence it is that the physical life offers no missionary activity. Our problem is then to find the basis for a general relation. Where is there anything that approaches a universal relativity? It is in the mental life. The relativity of knowledge, of any knowledge, is a fact. Exhaustive knowledge at any point is a universal relation. The relation in mental life is the exact opposite of the relation in physical life. Relativity is the fundamental law in the world of knowledge. The mental process in its beginning and at its ending is a relation; while the physical process is a unit, a centre that struggles for its life and survives through its fitness. Says Professor Höffding, "There is no series of absolutely independent sensations, but every sensation is determined by its relation to the one experienced immediately before it or at the same time," and again, (p. 114), "A sensation, which stands in no relation to any other, is not known to us. This law may be called the LAW OF RELATIVITY. From the moment of its first coming into being, the existence and properties of a sensation are determined by its relation to other sensations."* Here then in the first appearance of the mental life, viz., in sensation we find the law of relativity. Nor does the law vanish as we ascend the stages of the mental process. Thinking is obviously relating. To think an object is to put it in the widest relations. Here then is the home of the missionary idea. What is the doctrine of brotherhood other than an application of the law of relativity? When a man begins to know he begins to establish relations. When he begins to think, he begins to establish universal relations. In the thought-world we find universal relations, and there only. It is living and moving in this world of thought that develops the missionary impulse. Knowledge applied to the external leads us up to the idea of the universe; applied to man it leads up to the idea of brotherhood. And it is the universal idea that produces the universal feeling which we term the missionary motive. Let us see how this analysis applies to the question under consideration. Brahmanism shows us the Hindoo in the early stage of his work. He is intoxicated with his discovery. He seeks knowledge everywhere. His one desire is to possess the treasure. He is as the man seeking a fortune; while Buddhism is as the son

* *Outlines of Psychology*, p. 112.

who makes use of the fortune accumulated by his father. Brahmanism seeks knowledge; Buddhism applies it. Hence it is that the Buddhist is a missionary while the Brahmin is an ascetic. In Buddhism the fundamental law of knowledge is bearing fruit. And Gotama is a missionary as naturally as the Brahmin is an ascetic. It is this fact of universal relativity asserting itself in the mind of Buddha, that leads him to lose himself in his relations and to spend his life in serving mankind. This is the solution of our problem. Knowledge had been discovered and developed by Brahmanism. Gotama entered into this inheritance. He was a son of India. In his mind knowledge had its full and free play. And the result is a new type of man. He is a missionary, the early friend of humanity. India has given the world two types—the ascetic and the missionary—the man who discovers knowledge and the man who applies it.

We have followed thus the dialectic of Buddhism and have found it to move in a line logically straight. If now we look at Buddhism as a whole, as a movement in thought and life, what is it? Brahmanism gave us the idea of the world soul, Brahma, the one that is all; Buddhism moves to the other extreme and makes the individual a centre of eternal power. Buddhism is the doctrine that the highest and largest power in the universe is Gotama become Buddha. Knowledge made Gotama Buddha—and this knowledge is possible to every man. Buddhism places supreme faith in the individual. It appeals to the individual to realise his eternal power. The individual is subject to passion, but his glory is to conquer this. Buddhism is our earliest setting forth of the doctrine of individualism. Here is the secret of its large place in the minds of men. And this is the idea it has contributed to human thought. From the beginning Buddhism has insisted upon the worth, dignity, and infinite possibilities of the individual. It is this fact that gives Buddhism its place in line with the greatest movements of history.

CURRENT TOPICS.

A dispatch from Columbus, Ohio, dated Oct. 2, reads thus: "The revival of knownothingism was the subject of Dr. Washington Gladden's sermon at the First Congregational church to-night. Referring to the anti-catholic movement which is very strong here, he denounced all such secret organisations as un-American." During the past few weeks I have heard fifty varieties of social and political customs denounced as "un-American," and every one of them was, and is, more prevalent in this country than in any other; and some of them are practices peculiar to the Americans, and actually not known to any other people under the sun. In like manner I find the hackneyed and conceited nickname "typical American" given to every American of importance who happens to be mentally and morally unlike nine-tenths of all his countrymen. Those titles and phrases are typical shams, bits of hypocrisy with which we try to hide the blemishes in our customs and our character. Will Dr. Gladden kindly tell us what is "un-American" in secret organisations? One of the most conspicuous traits in the

American character is the disposition to join a secret society, social, religious, or political. We are very much like the schoolboy, caught in a misdemeanor, who lays the blame of it on to Jack, or Bill, or Tom. So it is with us. When we are detected in some delinquency peculiarly our own, we charge it on the French, or the English, or the Germans, or somebody else, and with self-righteous impudence declare that we could not possibly be guilty of it, because it is "un-American."

* * *
"Did Peary's project pay?" This is the alliterative head-line which I find at the top of a column of extracts from various newspapers, measuring Lieut. Peary's expedition by a purely monetary standard, and calling for the dividends in cash. One of them fretfully inquires, "What useful end will be subserved by finding out whether or not there is an ice-bound, uninhabitable island between Greenland and the next known shore on the other side of the pole?" Another says, "What boots it to ascertain how cold it may be there?" And another exclaims, "Arctic explorations are hardly more valuable in their results than an attempt to go over Niagara in a barrel would be." These will do for samples of opinions that might be multiplied by hundreds to the effect that Lieut. Peary's expedition did not "pay." The moral results of heroism count for nothing, because they will not sell for anything at auction; and yet the records of unprofitable courage are among the most valuable treasures of a nation. It is not wise to make the fear of personal danger an element of our national character. Wherever a scientific secret lies hidden within this earth, there are American sailors brave enough to go and pluck it out of Nature's heart if possible; and, win or lose, their self-devotion improves the quality of their countrymen. How much of unprofitable courage lies at the foundation of England's greatness; and of our own! The search for Sir John Franklin was a failure, melancholy and expensive, but the United States got more glory out of it than out of twenty battles. The sublime effort of Dr. Kane to find Franklin is an epic that dwarfs old Homer's mighty theme. The exploit of Lieut. Peary did pay; and that of his wife paid still better. Mrs. Peary has taught our frivolous women that they have capacity and courage of which they never dreamed.

* * *
Did Sir John Franklin's project pay? If an Englishman should ask that question he would be thought weak in the spirit of the old sea-kings. Not in ease and safety, but in hardship and in danger, did England cultivate the soul that animated Nelson, Blake, and Franklin. So it will be with us, for the children of the old Vikings are thick along the American shore. If any man doubts the worth of Sir John Franklin's fatal voyage, let him gaze upon Franklin's monument in the old abbey at Westminster, and estimate if he can, the value of such a trophy in toughening the moral fibre of a people. There we behold writ in marble the story of masculine bravery and feminine domestic love, the supreme constituents in the glory of the English race. On the top is a bust of the great explorer, with "FRANKLIN" on the base of it. Below the bust is the Erebus wrestling with the gigantic ice; and the devoted wife, although her husband had been dead for thirty years in the cold regions near the pole, lifting a woman's faith above her sorrow, carved upon the monument these words: "O ye frost and cold; O ye ice and snow; Bless ye the Lord; praise him and magnify him for ever." And this fine tribute from Tennyson:

"Not here! the White North has thy bones; and thou,
Heroic sailor soul,
Art passing on thine happier voyage now,
Towards no earthly pole."

It was fitting that when Lady Franklin died, these additional words were carved upon the marble:

"This monument was erected by Jane his widow, who after long waiting, and sending many in search of him, herself departed, to seek and to find him in the realms of light."

Take the record of those two lives together as it is written on that monument for the emulation of all English men and women, and is it any wonder that England is a coloniser and a conqueror ?

* * *

A number of years ago there was a man in London who made his living by exhibiting in a large cage on wheels a "Happy Family," as he called it, composed of naturally quarrelsome and un-congenial members, such as cats and mice, terriers and rats, hawks and canaries, rabbits and snakes, with fifty other heterogeneous animals who had never before lived in harmony together since the fall of Adam and Eve. All was peace in the colony, for the showman had brought the inhabitants under the discipline of social and religious toleration; although, before they were educated, they had looked upon one another with caste prejudices and sectarian scorn. The genius who taught the citizens of that community the value of peace and mutual good will, was rewarded with a penny here and there from a passer-by who admired the feat as a triumph of patient ingenuity; but I think it was more than that. I always regarded it as the moral achievement of a great man, who ought to have been Archbishop of Canterbury, at the very least, reconciling the sects and making of them a "Happy Family," like the cats and mice, the hawks and canaries in the cage. What the Archbishop had not been able to do with rich materials, the showman accomplished with inferior means; he had shown how sweet and how pleasant it is, not only for brethren, but also for those who are not brethren, to dwell together in unity. I am happy to see that his example is not lost, and that an attempt will be made next year to exhibit at the World's Fair, a theological "Happy Family" consisting of representatives of all the different and differing sects upon the earth; and that this congregation is to be called "The Parliament of all Religions."

* * *

In the *Review of Reviews* for October, much encouragement is given to the Parliament of all Religions; and very eloquent and enthusiastic praise of it appears in Count D'Alviella's article printed recently in the *Revue de Belgique*, Brussels, and copied into the *Review of Reviews*. Already, letters in approval and promises of co-operation have come from eminent men of all religions in every part of the globe; for the Parliament is to include all denominations of Christians, and also Jews, Buddhists, Brahmins, Confucians, Parsees, and Mohammedans; "not to plead the superiority of their respective theology," says Count D'Alviella, "but to seek and set forth the principles of all religions;" and "to find a common ground where religion shall have a field outside of denominational divergence." I hail this promise as the Arctic wanderer greets the rising sun; a parliament of sects is to overthrow sectarianism, and sacrifice the delightful hatreds of a thousand years. By a strange oversight the men who long ago "set forth the principle common to all religions," and "found a common ground for religion outside of denominational divergence" have not been invited to the Parliament. The sect that regards all other sects with equal charity and demands equal freedom for all their faiths will not be represented in the conference. According to Count D'Alviella, this Parliament is to proclaim "a religion which is the religion *par excellence*, and which is superior to any particular religion whatsoever." This will be the most exalted and the most effective spiritual work done since freedom went into theological eclipse long ago; because if there is one universal religion "superior to any particular religion whatsoever," there can be no further use for the particular religions. The religion superior to all others is enough, and the sects may beneficially be dissolved.

* * *

The Parliament of all Religions will abolish the crime called heresy, because when the universal religion "superior to any particular religion" is established, heresy will cease to be. It will vanish into the limbo of dead creeds, and carry away with it all

its foolish punishments. Then the churches, united in a common faith, will see and say that he who is not a free thinker is not a free man, and the "open and avowed" sectarian will be a curiosity. Ambitious men quibble and squabble about free trade, but the supreme triumph of this age is a free brain. The president of the Parliament of all Religions is a Presbyterian Doctor of Divinity, conspicuous for his learning, character, and ability; but before his parliament can abolish heresy the Presbyterian Church is determined to enjoy once more the luxury of trying a heretic. Charges and specifications have been preferred against the Rev. Dr. Briggs, for knowing more than the church; for thinking forward, instead of backward; and his trial is to begin on the 9th of November. The anticipated pleasure of the prosecution is not so great as it would be if Dr. Briggs were not quite so eager to be prosecuted. You seldom see a delinquent so anxious to be tried as he is; and his pursuers already begin to feel as I did once in the backwoods of Canada, when the bear that I was after got after me. The friends of Dr. Briggs appear to be in a majority in the Presbyterian church, for the paper says: "Early in the day's session nominations for delegates to the synod which meets in Albany, Oct. 18, were made. The vote showed a sweeping victory for the friends of Dr. Briggs." Should the rationalistic presbyterianism of Dr. Briggs prove triumphant, as now seems likely, his judges then will be the heretics, and he can have some religious consolation in trying them; for the difference between Orthodoxy and Heterodoxy, is merely a question of numbers; Orthodoxy of course being always in the majority.

M. M. TRUMBULL.

BOOK REVIEWS.

THE SPEECH OF MONKEYS. By R. L. Garner. New York: Charles L. Webster & Company. 1892.

The author of the present work is certainly to be congratulated on originality in his design, although we question whether he is correct in saying that "not a line on this subject is to be found in all the literature of the world." The idea that many animals have a language of their own is an old one, and a knowledge of the language of birds was regarded by the ancient Greeks as a sort of divine gift. Mr. Garner's originality consists in attributing to monkeys especially the use of speech the same in its elements as that of man. He may be wrong in this conclusion, but in any case he is quite justified in drawing practical attention to the question, after having made a series of careful investigations and experiments. This he could not have done without the use of the phonograph or graphophone, and some of the results thus reached are very curious, whatever may be the ultimate conclusion as to the connection between human and monkey speech. It would be a mistake to suppose that the author believes animals to be able to carry on with each other a connected conversation. He imagines that "the masses" are of a contrary opinion, which he corrects by saying that the speech of monkeys is usually limited to a single sound or remark, which is replied to in the same manner. But the real point is as to the relation of this speech to that of man; and nothing that the author says supplies evidence that monkeys have what is understood by articulate "language." That they utter sounds which have a particular meaning and that this meaning is understood by other monkeys, and even that they may learn to understand the meaning of words used by human beings is certain; but this is not language in the proper sense, although it is speech, just as the mewing of a cat is speech. All that can be justly inferred from Mr. Garner's observations is, in his own words, "their speech is capable of communicating the ideas that they are capable of conceiving, and, measured by their mental, moral, and social status, is as well developed as the speech of man measured by the same unit." But the author could have reached this conclusion without ever hearing a monkey speak; and not only

is it what every naturalist must admit, but it applies equally well to all animals, if the doctrine of evolution is valid.

The most important feature in Mr. Garner's work is his proposal to attempt to reach the primitive elements of speech by the use of the phonograph. His experiments with this instrument lead him to believe that the fundamental sounds of monkey speech are pure vowels, although faint traces of consonant sounds are found in many words, especially those of low pitch. He has been able also to develop certain consonant sounds from a vowel base, and he thinks therefore that this has been the origin of the former in human language. This view is not confirmed, however, by what we know of the most primitive human languages, in which the dropping of consonantal sounds is rather a mark of decay. As to the extent of the monkey vocabulary, it appears to be somewhat limited, as the author is able to credit his Capuchin friends with only nine words, although some of these are supposed to be capable of several meanings by difference of inflection. This would hardly seem, however, to be sufficient to enable little Dodo, whose portrait is given on the cover of the book, to express the ideas ascribed to her in her *lover's complaint*, which must have been of the most remarkable character.

The book is, on the whole, a very readable one, especially where it describes monkey manners. It is not surprising that the author has become sincerely attached to his simian friends, whose ways appear to be very entertaining. He has the faculty of gaining their confidence through the use of their peculiar sounds, and we trust he will be equally successful with the gorillas of West Africa he has gone to interview. If he could teach them his own language as well as learn their speech, his journey would have a practical value, which we fear, so far as the monkey race generally is concerned, his inquiries will be deficient in. Nevertheless, he may be able to collect facts which will throw light on the bases of human language, as it must ultimately be founded in the emotions; but others must draw the conclusions, unless he learns better than to say, "if it be true that man cannot think without words, the same must be true of monkeys"; which confounds the popular with the philosophic meaning of thought. Ω

L'AUTORITÉ EN MATIÈRE DE FOI ET LA NOUVELLE ÉCOLE. By E. Doumergue. Lausanne: F. Payot. Paris: Librairie Fischbacher. 1892.

This critical study has been called into existence by the reception accorded by numerous journals, and by such writers as M. M. Coquerel, Astié, Roberty, and Raoul Allier, to a pamphlet written by M. Léopold Monod, the well-known pastor of the free church of Lyon, on *The Problem of Authority*. M. Monod's pamphlet is accepted by the New School among the French Protestants as its manifesto, and judging from the observations of M. Doumergue, who is the professor of Protestant theology at Montauban, it must be a very able production. The Protestant church in France has long been agitated with the same questions as those which have disturbed the religious peace in this country and in Great Britain, and the New School appears to have reached the position characterised by its opponents as the "divorce between thought and life." This position is certainly a somewhat incongruous one, and it may well be questioned whether those who affirm that "the sphere of action of Plato has been that of ideas . . . the sphere of action of Jesus Christ has been the life," can justly claim to retain the title of Christian, using this term in the ordinary sense. That they lead a "Christian" life is admitted by Professor Doumergue, who well remarks, "we are convinced that this Christianity, this piety, are with them the fruit, not of the new doctrines that they preach, but of the ancient doctrines that they reject." Nevertheless, many of the moral precepts ascribed to Jesus are rejected by the new school of Protestants in all countries, those only being retained which are regarded as consistent with the present

advanced stage of moral culture; and it would be better if they recognised more clearly the fact that they have ceased to belong to the distinctively Christian church. Professor Doumergue addresses himself, for special reasons, particularly to the younger members of the French Protestant church, whom he regards as its chief protectors. There is no doubt that his manual, which is closely reasoned, will be widely read by those interested in the question of authority in matters of faith. Ω

THE MAKING OF A MAN. By Rev. J. W. Lee, D. D. New York: Cassell Publishing Company.

This book is based on the idea that mind is prior to matter, and that there is design, intention, and purpose in nature. The earth was made for man, and "the scheme of nature so completely corresponds to the understanding of man as to make it possible for him to command and claim all her possessions for his own." The author, however, regards the earth as a place of discipline, and he points out what he considers to be the provision made for the physical, moral, spiritual, and other phases of man's nature, including immortality, which belongs to him as a self-determining spirit! The book is well written and is well intentioned, but it is theological rather than scientific. Ω

THE OPEN COURT.

PUBLISHED EVERY THURSDAY BY

THE OPEN COURT PUBLISHING CO.

EDWARD C. HEGELER, PRES.

Dr. PAUL CARUS, EDITOR.

TERMS THROUGHOUT THE POSTAL UNION:

\$2.00 PER YEAR.

\$1.00 FOR SIX MONTHS.

N. B. Binding Cases for single yearly volumes of THE OPEN COURT will be supplied on order. Price 75 cents each.

All communications should be addressed to

THE OPEN COURT,

(Nixon Building, 175 La Salle Street,)

P. O. DRAWER F.

CHICAGO, ILL.

CONTENTS OF NO. 268.

THE CRITIC OF ARGUMENTS. II. The Reader is Introduced to Relatives. CHARLES S. PEIRCE.	3415
THE PSYCHOLOGY OF BUDDHISM. (Concluded.) PROF. H. H. WILLIAMS.	3418
CURRENT TOPICS: What is "Un-American"? Did Peary's Project Pay? Did Sir John Franklin's Project Pay? A Theological Happy Family. A Religion "Par Excellence." The Parliament of all Religions. GEN. M. M. TRUMBULL.	3420
BOOK REVIEWS.	3421