

know just how many pounds of leaves, having just so much "energy," will make just so much life, which will expend itself in making just so much silk. We see one change taking the place, and so correlating into, thus becoming the other. This being so, the "spirit" or spook that used to make the wine or bread or silk is gone, and Bacchus and Ceres are now only myths. All vegetable and animal life is simply such transformation of the stored and latent energy of saps and foods into the action or vital energy of protoplasm called "living." The "immaterial entity" is no longer needed to account for it; that is now a fifth wheel to the coach, as needless and as absurd as Bacchus or Ceres, and just as unthinkable. It is a pseudo, or false, idea—a nothing something or a something nothing? It vanishes whenever you try to think it, just as a spook always does. It cannot account for itself, much less accounting for anything else.

Life, then, is a process of the changes in protoplasm and its cells, always the correlate and concomitant of changes in food matter. This fact is now incontestable. It makes no difference whether it is one microbe, a yeast cell, or the three million cells which make up the wonderful complexity of the human body. Any one who wishes can note the process; it is all around us. Indeed, we are its highest instance. It is a fact incontestable, and ends the case. Life's higher manifestations in the sense of "self," consciousness, design, etc., are found to be the concomitant, correlative results of this fundamental vital process. They are the complex combination of changes in the nervous systems of the higher animals and of man, but without "life" they at once cease. The vital process is the Sun which makes our mental day or night, without which neither are.

Nor is it an objection that the process of vital action is a continuous one, which we have not as yet been able to start without a cell or bit of protoplasm to begin the process with. In olden times fire was always started by fire; when started otherwise it was supernatural, and "Vulcan," the "God," or "caloric," the "entity," did it, for man "could never" do it! How absurd is this now in the age of "parlor matches" and electricity! But instead of starting life with fire, we start it with water. The microbes and smaller cells, even yeast, often become perfectly dead for want of moisture; the immaterial "entity" is where? But give moisture and the right conditions and food, and soon they are "at it again"—lively as ever! The inhaling of these dried microbes is the chief cause of consumption and other diseases. They revive and grow again in our lungs. So with thoroughly frozen mi-

crobes, and possibly with fishes and higher animals, if the conditions remain they will return to life, because the means of their vital processes have not been much changed or destroyed. You have only to try these things on to see that they are so. Unless the material and the conditions of the life process are destroyed, life can, under proper circumstances, be discontinued and be set agoing again. There is no more immaterial entity about it than in turning on a light or reviving a "drowned man." There is no entity to call back in either case. There is simply a renewal of natural processes which have been suspended from want of moisture, or air or nutrition. Why do not scientists produce protoplasm or albumen able to take on this vital process? Because of the delicacy of the materials and process at the start. It seems not to have been reliably done in the chemical laboratory as yet, but it is a sure promise of science. But how protoplasm originated is not at all material to this life question. The question is, whether life is the correlative result of the natural changes in matter, or of the doings of an immaterial entity? Science proves that it is a force process continued from other changes of matter. Having proved that life takes place in this ONE way, by the "law of economy," as the lecture said, it cannot come about in any other way, and by the said law of correlation the same result cannot possibly come from different causes.

That idea, however, that protoplasm is a "created" material, is negated by the fact that the creation of anything out of nothing is an inconceivable or pseudo idea. Nothing "created" has ever been found; and so that hypothesis has no place in Science or Common Sense whatsoever, for it has no fact—nothing whatever to stand upon.

But that living protoplasm is a naturally produced substance, is perfectly clear from what has been discovered about it. For its life is the action of chemical elements (C. H. O. N. P. S.), so combined that they cannot hold together or exist as protoplasm at all, except by that action. Just as soon as that action ceases the living protoplasm becomes dead, and unless revived as aforesaid, soon decomposes. But it has been discerned and proved that this action, absolutely necessary to the existence of protoplasm at all, is itself a natural correlate of changes in foods, and does not and cannot exist except as such correlate. As this natural process is thus the "soul" of living protoplasm, without which it cannot live at all; and as things can only originate in "one way," it follows beyond question that protoplasm came about naturally by and with this same action or

natural life process. In a word, it is thus proved that life and protoplasm are indissoluble; that both originated TOGETHER, and both NATURALLY, just as they are now naturally continued. Thus Science settles every doubt and question on the subject which has been raised. The lecture seems to think that the consequences are very dreadful.

It talks as if science was nothing more than an invitation to attend our own funerals. President Hosmer has well intimated the opposite view tonight. No, no! my friends, not our funeral, but that of the "immaterial entity"!

This truth is simply destructive of an error which clears the way for a higher and better life for us and our race than was ever before imagined. That will appear when we come to speak of "Our New Hope".

For the Torch of Reason.

"Guilded" Points.

BY JOHN PRESCOTT GUILD.

A priest is a holy humbug.

Hate is hotter than any hell.

Man is bigger than any book.

Right is larger than any law.

Love is fairer than any faith.

Truth is greater than any God.

Knowledge is better than any belief.

Principle is higher than policy, but rarer.

Unless you know another's purpose, you cannot know he has made a mistake.

Might is not always right, but when might is right, it may change wrong to right.

The man who says you cannot be honest in this world and succeed in business, it will be successful for you to have no business with.

Those who carp that much learning may make one mad are not of the kind liable to lunacy from that cause. Fools never go crazy.

Do not be afraid of getting hurt by getting a new thought; your old ideas were new when you got them. Did they hurt you much then?

Brilliant diamonds are desirable if you want to shine in polished society, but rough boulders are better for building the foundation of a structure.

"Lessen your wants and be content with a little," is a lazy man's philosophy. They who want little will do little and get less; and they will get left, too.

Aim high, preach high and go high. Do not talk down to the people, but talk the people up to you. Talk above your own head, and then grow up to your own talk.

Do not be afraid of being too good. You will not be too good if you try, but you may think you are too good for anything but God when you are too mean for any use to man.

I will not stoop to folly to win a smile; I will not cater to stupidity to court popularity; I will not pander to crime to wed renown; I will not renounce my reason to get on to the graft.

For the Torch of Reason.

Brain Photographs.

BY C. S. SPARKS.

All the great works of literature, the wonderful feats of architecture, all the things that have benefited man, and all the thoughts on any and all subjects, whether good or baneful, are but photographs of the brain, and the greater the development of the camera, the brain, the more accurate will be the photograph.

An imperfectly developed brain will produce an inaccurate photograph of anything which it endeavors to produce.

The brain, whether developed or undeveloped, will produce its ideal upon any subject.

The brain which produced the Bible and the characters therein did the best it could. Their ideals were portrayed within the bounds of the development of their brains, and do not exceed that development.

Our greatest thinkers possess brains of much wider range and development than those who painted their ideals that are perpetuated by the Bible, and, consequently, they are capable of more accurate reasoning and determination of the things mentioned and supposed by the authors of the Bible to be the perfection of the capabilities of the race.

The perception of the authors of the Bible could not imagine other than that the world is flat, and since they did not know mathematics and astronomy, they accepted their imaginations on the subject.

Since the brain has become capable of perceiving and producing more accurately, by possessing the science of astronomy and mathematics, accurate calculations have become a reality, and science has long since demonstrated that the world is round.

The brain is a great castle, in which is received dispatches from the nerves of the body that constantly, consciously and unconsciously direct our actions and furnish us knowledge of the world.

The authors of the Bible did not understand this. They permitted the brain to exist in a mild, uncultivated state, and concluded that all their aspirations, successes, hopes and fears were attributable to "God"—an indescribable something beyond the bodily vision of man.

In nearly all ages of record we find, however, that there were a few whose brains had reached a development far in advance of their fellows, and that they have paid the death penalty for reproducing the mental pictures of the brains, and that it is only in recent times that the great thinkers have had the toleration of those not so far advanced as themselves.

We have had more learned men