

SILENT WORKINGS OF SCIENCE.

Mankind, in hot pursuit of pleasures and the wherewith to procure them, are hardly aware of the silent labor bestowed upon their amelioration by those engaged in scientific investigation. Periodically an astonishing discovery is made, some hidden force of nature is utilized, and the world amazed stops, adopts the convenient discovery, and then, condemning it by reason of that familiarity which breeds contempt, rushes on again in its mad whirl of physical excitement. Too much devotion to the purely physical development has always, and perhaps will always, prevail. The pure, theoretical pleasures of the mind are to a great extent wholly disregarded. Perhaps science is not altogether blameless for this condition of things. Monotony of any description cloy the reasoning faculties, and excites finally distaste and abandonment. From the purely speculative philosophy of the ancients, we have as a matter of course fallen into the opposite extreme, obeying, humanly speaking, that law of nature which causes all disturbed bodies to gravitate, or vibrate until rest, equilibrium is restored. Literally we are vibrating to and fro, on a pendulum, and have fallen asleep. Some day science will stop our pendulum, and we will awake to discover, that in spite of our bodily activity, we have really been sleeping. Science as well as common sense tells us that vice is ruinous to the mind and body. Religion rebukes us if we go astray. We laugh at both, and why? The truth is our prejudices are still deep-seated, and we are bound to have what we term pleasure. All this is the result of erroneous ideas imbibed perhaps in our youth, from a too constrained watchfulness. Science steps in and aids religion, while it has nothing whatever to do with it; but its aid is not that of violent denunciation, but the bringing into submission to man's uses and enjoyments all of the forces of nature. The workings of science are quiet and peaceful, unknown to the majority, but nevertheless effective, and will accomplish more than prohibitory laws ever can, and for the reason that they furnish him with all he requires or desires, and impose no restrictions upon him. This is just what the heart of man desires in the present condition of the world, and when this shall be accurately known and understood, mankind will awake from an unreasoning sleep and be improved in health, morals and general intelligence.

ON DIPHTHERIA.

Dr. E. M. Snow says, in his last report as Register of the city of Providence:

In connection with this subject I think it my duty to ask the attention of the people of Providence, and especially of parents, to the following statements:

1. No case of diphtheria occurs without an adequate cause. This is self-evident.
2. The cause of nearly all cases of the disease exists in the houses or premises, or within a few feet of the houses where the cases occur.
3. The cause of nearly all cases that occur in the city is breathing impure air from privy vaults or sink drains, or cesspools; or drinking impure water.

Origin of Diphtheria.

Diphtheria is believed to have originated in Egypt more than 2,000 years ago. It prevailed in Egypt and Asia Minor, to which it extended, during the first 500 years, and hence was early called an Egyptian or Syriac disease. Having invaded Europe, the disease appeared in Rome, A. D. 330, and being highly contagious, in its 1,500 years transit on the continent of Europe, it affected mainly rural districts and garrisoned towns. It extended to Holland, in which it was epidemic in 1337; to Paris in 1576, and

again appeared there in 1771. It prevailed more extensively in France in 1818 and 1835, and in England, the United States and Canada from 1856 to 1860, and more or less since.—*Hospital Gazette.*

DRUG TAKING MANIA.

Women are rather more given to drug taking than men, though both are bad enough in this respect. Here is what one of our most eminent physicians has to say on this subject:

"Dr. Holmes has said that it would be well for the world if most medicines were thrown into the sea; that it might be bad for the fishes, but it would be better for mankind. For this unasked and impertinent suggestion he has received a good deal of orthodox censure, which I am here now to share with him, for I am of the same opinion as Dr. Holmes, and this opinion has long been a part of my Christian faith. That the major part of the world does not agree with us is plain. Indeed most people seem to think that the chief end of man is to take medicine. Babies take it in their mother's milk; children cry for it; men and women unceasingly ask for it. Shrewd men have taken advantage of this instinct, and in most civilized nations it is to-day one of the chief articles of manufacture and commerce. It is one of those things which is never permitted to be out of sight; but is thrust upon you in the nursery, in the streets, upon the lamp posts and upon the curbstones, along the highways, from the rocks which border the rivers; the medicine chest follows you at sea, as if the sea itself, a vast gallipot of nauseants, were not enough. One might naturally suppose that the supply would at length exceed the demand; but it does not. Everywhere the people are stretching out their arms and begging for medicine, blessing him who gives and cursing him who withholds. They believe, in their simplicity, that if medicines do no good, they can at least do no harm. They imagine, also, that there is a medicine which may be regarded as a specific for every human malady, and that these are known to science, and that therefore we have the means of curing all diseases; but the people imagine a vain thing. Whatever medicine is capable when properly administered, of doing good, the same medicine is equally capable, when improperly administered, of doing harm; and drugs often substitute a malady more serious than that which they were intended to cure. The Irishman said his physician stuffed him so with medicine that he was sick a long time after he got well.—*Dr. Frank Hamilton.*

BRAIN WORK AND SKULL GROWTH.—The *London Medical Record* sums up as follows the results of some very interesting measurements of heads by two French physicians, Messrs. Lacaze and Cliquet: Having the patients, doctors, attendants, and officers of the Val de Grace at their disposal, they measured the heads of 190 doctors of medicine, 133 soldiers who had received an elementary instruction, 90 soldiers who could neither read nor write, and 91 soldiers who were prisoners. The instrument used was the same which haters employ in measuring the heads of their customers; it is called the conformator, and gives a very correct idea of the proportions and dimensions of the heads in question. The results were in favor of the doctors; the frontal diameter was also much more considerable than that of the soldiers, etc. Nor are both halves of the head symmetrically developed; in students, the left frontal region is more developed than the right; in illiterate individuals, the right occipital region is larger than the left. The authors have derived the following conclusions from their experiments: 1. The heads of students who have worked much with their brains are much more developed than those of illiterate individuals, or such as have allowed their brains to remain inactive. 2. In students the frontal region is more developed than the occipital region, or, if there should be any difference in favor of the latter, it is very small; while in illiterate people the latter region is the largest.

DARIEN CANAL.

We shall have occasion to present to our readers in a short time a complete exposition of the proposed canal. In the meantime the resolution offered in the last Congress by Senator Burnside with reference to the foreign ownership of the Darien canal interfering with the Monroe doctrine, has been criticised by the press of France in such a manner as can leave no doubt that Senator Burnside's ideas were correct. It appears from *La Republique Francaise* that the canal will be absolutely neutral territory, and that in consequence America need not fear entrusting the management thereof to foreign hands. This absolutism is just what America has always and will always contend against. Its destruction was the reason of the Monroe doctrine, and the true doctrine of national free will finds an ardent exponent in the American nation. Hampered on every side by the restrictive ties and contracts with nations foreign to this continent, how can this country hope to maintain its prestige? This Darien canal question comes home to our interests, if not more, as much, at least, as our war with England. What the nations cannot accomplish by brute force, they are now attempting to accomplish by diplomatic skill and finesse. "The United States must be checked." It has penetrated to every quarter of the globe with its mechanical and industrial products, and is fast crowding out of the markets of the world the products that heretofore have given European nations their greatness. We cannot afford to permit this thing, and on our own coast the matter is of great importance. The Orient is open to us, and we are gradually commanding its trade. Europe cut off by the natural obstruction of the Western continent, seeks by every effort to cut us off. National ambition to grasp the commerce of the East is the mainspring that moves northwest passage expeditions, and years ago the Darien canal was broached but suspended because it was thought a passage through the Polar sea would be discovered and made available. But now there is no hope of a highway in that direction, so the Darien canal has assumed its complete features. Upon the assumption that the United States can control eventually the commerce of the world, the foreign element on this hemisphere must be kept at a distance, and to Americans belong the right of controlling a highway theirs naturally. The same policy that European nations adopt to protect their commerce, must be adopted and enforced by us; and there is not a nation on the earth that would oppose us in our demands, or that would resist our enforcement of the Monroe doctrine. The star of Europe is setting, while our star of empire is ascending, hence the struggle of Europe to renew its luster at the expense of ours.—*Mining and Scientific Press.*

PUBLIC STEAM HEATING.—A project to introduce public steam heating in New York has been sanctioned by the Commissioners of the Sinking Fund. The system is known as "Holly's steam combination system" for heating, cooking, and other purposes. It is claimed that by it there will be a saving of \$150,000 a year in the heating of the public buildings. It will also save the city from \$300,000 to \$500,000 per annum in the removal of ashes from the dwellings and snow and ice from the principal streets and avenues. The steam will be conveyed through pipes laid in the street, and supplied for any purpose. Its cleanliness and many advantages to the housekeeper cannot be estimated too highly. The city is to receive \$150,000 from the company for permission to lay the pipes, and a further compensation of 3% of the earnings of the company. That section of the city south of Canal street is set apart for the purpose.

GLASS, the product of silica and an alkali, was known prior to 3,000 B. C.; made in Alexandria, and cut, colored and gilded 300 years B. C.