Engineers' Institute of New York City.

TO THE ENGINEERING PROFESSION AND THE PUBLIC,

Many inquiries and much misrepresentation being made as to the objects of this Association, it has been deemed advisable, in justice to its members, and others interested in the success of institutions of a kindred nature, to set them forth fully and explicitly, by an Address drawn up by a special committee, and approved of by its members at a regularly organized meeting.

The Engineers' Institute, in its membership, comprises engineers, draughtsmen, machinists, pattern-makers, and apprentices in the above-named branches, being organized on the 25th of October, 1849, by the election of Alfred Stillman, Esq., asits first President, whose melancholy death has deprived us of a warm and valued friend, and an active, energetic supporter of its objects.

Any Association that has for its object the advancement of human happiness by the diffusion of useful knowledge, tends to ameliorate the condition of mankind, and to lessen the ills and miseries incident to the trials and struggles of life: as such, we conceive it to be worthy of approbation, and entitled to the warmest support and admiration of all capable of appreciating the benefits which mankind at large reap by the increased intelligence of the artizan, to whom it is indebted, in a great measure, for its numberless enjoyments and luxuries; and as it has been from the artizan class, more especially from our profession, that the great and wonderful inventions and improvements in arts and manufactures have sprung, so it is reasonable to expect that this is the source from whence such improvements will continue to flow; and it may safely be affirmed that he who is most intelligent will be foremost in bringing to light and reducing to practice some great discovery, which shall cause his name to be handed down to future generations, adding another bright page in his country's history of her mechanical skill, and the capability of her artizans to compete successfully with the world at large.

To encourage and aid the mechanic in his studies, to make him acquainted with the theory as well as the practice of his profession—to instil into his mind a taste for all that is useful and instructing—to impress upon him the necessitity of acquiring knowledge,—to enable him to keep pace with the improvements of the age, and to elevate him by these means above the low level in which he has too often been held, and enable him by intelligence, industry, and perseverance to assume a position in society to which, by the possession of these, he is entitled to, and will assuredly attain,—these, and these only, are the objects of the Engineers' Institute.

The reports and misrepresentations made by malicious and reckless persons, to employers and others, that its object is that of combining to obtain a high rate of wages, foment strikes, and otherwise to work against their interests—we unequivocally and emphatically deny; as also the truth of the reports which have been so industriously circulated by the same class of persons, that another object of our Association is that of driving from the profession, and depriving of a living, those of our brethren who have not served a time to the mechanical part of the business, and are employed as engineers on board our steamboats, and in establishments where steam power is used. It is true, the conditions of membership is confined to those only who, in the general acceptation of the term, are practical men; but it does not follow, nor is it the case, that this Institute, as a body, have, in any manner or shape, from the date of its organization to the present time, sought to interfere with, or injure, those belonging to this class. We therefore desire it to be distinctly understood by employers, steamship and steamboat owners, and the class of engineers referred to, that this Institute has not sought, nor is it the object of its organization, to injure, directly or indirectly, present or prospective, the interests or rights of any one. The sayings and doings of other than members, and even some one or more of them, acting individually, the Institute, as a body, cannot, nor would it be just that it should, be chargeable with, any more than society at large can be for the acts of any one or more of its members; we desire only, by its existence, to afford knowledge and instruction to those desiring to avail themselves of it, and by so doing, confer a benefit on others as well as ourselves.

The means provided to carry out the objects of this Institute, consist of a Library and Reading Room, which is open every evening throughout the week, with weekly meetings on Thursday evenings for the transaction of business; also classes for mathematics and drawing. One of the most important and interesting features of the weekly meetings consists in descriptions of and debates on all the prominent inventions of the day, as well as on subjects connected with or bearing on the principles and practice of our profession. The nature of these discussions will be seen from the following subjects now pending:—"Safety Valves—their construction and application;" "Ericsson's Caloric Engine;" "Will a Condensing Engine work without a foot valve; if so, what construction of air pump is required?" By these means an unlimited amount of theoretical and practical information is diffused among its members. The classes in mathematics and drawing are a valuable auxiliary to the acquisition of knowledge imparted by these discussions, independent of which it affords the means to many, particulary apprentices and young men, of employing, to great advantage, their leisure hours, in supplying that void in their education, which, in many cases, the necessity of having to earn a livelihood for themselves, and support widowed mothers, sisters, and brothers, early in life, has imposed.

To carry out the above objects efficiently, we should possess a good library, as also be well supplied with the current scientific and mechanical publications of the day, issued here and in Europe, likewise commodious reading and class rooms, but we are sorry to say that one room has to answer all these purposes; and our income being very limited—that only arising from members' dues, which are very small, it is scarcely sufficient to pay rent, light, fuel, and other incidental expenses—we have therefore been unable to appropriate any funds toward our library, which is extremely small, almost deficient of standard scientific and mechanical works, which are very expensive; and even the little we do possess consists of works given or loaned to it by its members, and a few from others, whilst we are entirely without the many scientific publications that are constantly to be found on the tables of other institutions.

In view of these facts, and the incalculable good that this Institute is capable of doing, if its objects are efficiently carried out, which can only be done by aids afforded us by the philanthropist, and liberal-minded of our profession who possess more of this world's goods than ourselves.

We are therefore induced earnestly to appeal to employers, and all others disposed to afford encouragement and assistance to our enterprise, to aid us by donations in money, books, or otherwise, and those disposed to aid us by the loan of books, drawings, models, instruments, &c., may rest assured that the same will be thankfully received and religiously taken care of.

Having taken the preliminary steps to become incorporated, and a Board of Trustees appointed, is a guaranty to all who may respond to our appeal, that the same will be honestly and faithfully administered, to forward and carry out the objects for which this Institute is founded; and all communications addressed to W. H. Lindsay, Corresponding Secretary Engineers' Institute, 151 Bowery, corner of Broome street, will receive prompt attention.

In conclusion, we trust that all other considerations aside, national pride will not allow us to appeal in vain to those who have the heart and means to aid and sustain our mechanics in the proud position they have already achieved in the struggle going on between them and those of other nations, for supremacy, by placing us on a par with them in the facilities of acquiring knowledge. Our rivals, we are well aware, have not appealed in vain to their countrymen for aid—and they have responded nobly and with a will, for which we honor them. We have had to contend with them, unaided, against the experience and the advantages so liberally furnished by those who feel their country's honor is at stake, and in maintaining the unequal contest have been dependent solely on our own energy, perseverance, and talents. So far we have reason to be proud in saying that the national honor has not suffered in the struggle at the hands of her engineers; and, without egotism, we may also be permitted to say, that, thus far, we are the victors, whether we shall retain it depends, in a measure, no less on our countrymen, in aiding and sustaining us, than on ourselves. But, aid or no aid, we shall still manfully and honorably contest the superiority,—without aid, impregnable in the indomitable will, perseverance, and self-reliance, with which we shall continue to contest it; and with aid, confident in the belief that the same advantages, a clear field, and no favor, the Engineers of the United States will not only maintain the laurels they have already contributed to entwine around their country's name, but, at no distant day, achieve triumphs which, whilst shedding a brilliant lustre on the national escutcheon, bespeaking the intelligence and skill of her artizans, will aid in drawing more closely together the great family of Nations, and contribute, in no small degree, to place her permanently at their head in arts, science, and manufactures.

WILLIAM B. LINDSAY,
GEORGE P. CLARKE,
JOHN B. MOORE,
} Committee.

Coffee, its Properties, &c.

In the two last numbers of the "New Jersey Medical Reporter," there is a very interesting article on Coffee, "its medicinal, disinfecting, and dietetic properties," by J. Paul, M. D., of Trenton. We will pass over its history, as that has been presented to our readers before, but there are some new points respecting its use, which we have seen in no other work, and since 150,000,000 lbs. of coffee are consumed in these United States every year, no person can be neutral in respect to any thing which may be said about this plant.

As an antifebrifuge, it has long had a high character when drank early in the morning. It is used for this purpose to prevent fevers, by those living in marshy situations in a tropical climate; and in Batavia it is used for quinine. "It has been recommended to relieve obstinate spasmodic asthma, by taking one ounce of a strong infusion without milk or sugar, the same to be repeated, fresh made, every half hour." The doctor who recommended this, we must say, was not afraid to prescribe any thing. "In headache, from weakness of stomach, contracted by sedentary habits, close attention, or accidental drunkenness, if coffee can be drunk within an hour after dinner, it is said to be of singular use." This may be true, but it would not be wise to use a too strong infusion. Mr. Hannon speaks in high terms of the use of caffeine for those who are depressed in spirits. In diarrhœa and infantile cholera, Dr. Pickford, speaks highly of its valuable effects. He gives one half to two scruples of coffee, in two ounces of water, adding one ounce of syrup and giving a table-spoonful every hour. In bilious diarrhœa, it should be given in small doses, as in large doses it has a purgative effect. For whooping-cough, Dr. Jules Guyot recommends its use: it is given hot, well sugared, about four times every day. He states that he has cured sixty cases with it, and the most obstinate yielded in four days. The "Southern Medical and Surgical Journal," for 1835, states that coffee should not be used by nursing mothers, as it has a tendency to lessen milk secretions, while tea has a contrary effect. We must say, however, that our knowledge of coffee, as a medicine, is but limited, and while it may affect a person favorably in one case, it might affect another person unfavorably.—There is a great tendency to run certain medicines above the standard value, such as cod-liver oil and quinine, and it may be coffee.

As a disinfectant, coffee has been highly lauded; in the "Medical Gazette," for 1849, a writer asserts it possesses the property of rendering animal and vegetable effluvia not only innoxious, but actually destroying them; it overpowered the smell of musk and castor, also the effluvia of decaying meat and sulphuretted hydrogen. The way to use it is to take hot rotsted coffee into the places where the effluvia is given off.

For diet, Dr. Jackson states that all aliment adapted to healthy nutrition must be a *protein* compound—a combination of carbon, hydrogen, oxygen and nitrogen, (C.40. H.30, O.12, N.8), substances mostly containing nitrogen are supposed by some chemists to be nutritious (the Grahamite theory), but this is an error. The alkaloid of coffee is caffeine, a nitrogenized body, which cannot be ranked as a food. Coffee, however, according to Payen's Analysis, is an alimentary substance, but it cannot rank high as a food, nor can its use, as a chief material of diet, be justified. Dr. Bocker asserts it acts on the nervous system in a peculiar manner, and Dr. Jackson ascertained this by experiments on himself;—large doses produced a diminished appetite, slow digestion, and an uneasiness of breathing similar to asthma. The blood in the veins had a darker tint and the globules did not redden easily by contact with air. Dr. Jackson therefore considers coffee a false aliment, which diminishes the healthy decomposing action of the organs, but it may be employed as a medicine in diseases where metamorphis is too active, but not in inflammatory cases. Coffee has the property of exciting the nervous system, and may be looked upon as an incentive by rich and a consolation to the poor. It appeases hunger and renders an indifferent meal apparently substantial to the poor, while it excites the rich by its action on the nervous system. Tea and coffee exert the same nervous excitement, for in constitution they are nearly alike, but coffee has the advantage as a nutrient. When fatigued, and weary with travelling, or watching by a sick bed, a cup of tea or coffee exerts a beneficial and enlivening influence. Dr. Jackson, says, that coffee should not be used for food, except in a strong extract, and the cup only half filled with this, the other half being good milk, and the whole well sweetened with sugar. This he calls "a good alimentary drink." The use of large doses of weak tea and coffee, so common at every meal in our country, he deprecates as destructive to the appetite, by rendering more nutritious food unpalatable, thereby tending to impoverish the blood. "The limited and moderate use of coffee, taken conjointly with more nutritious food, is not to be forbidden," says Dr. Paul, "but its immoderate use, to the exclusion of other proper nourishment, is positively injurious." He believes that coffee is injurious to children and to persons of a highly nervous temperament. They should partake of a simple and wholesome aliment that does not stimulate the appetite with a false satisfaction. People whose lives are devoted to severe physical labor should also be careful in the use of coffee,—they should use it but seldom, and never without plenty of milk and sugar; and when they drink it, the evening meal should rather be chosen, when they are fatigued and depressed, than the breakfast, which is the one, by unaccountable custom, at which coffee is now generally taken.

The Sand in Egypt.

The sand has played a preservative part in Egypt, and has saved for future investigators much that would otherwise have disappeared. Miss Martineau says, in her "Eastern Life:"—"If I were to have the choice of a fairy gift, it should be like none of the many things I fixed upon in my childhood, in readiness for such occasions. It would be for a great winnowing fan, such as would, without injury to human eyes and lungs, blow away the sand which buries the monuments of Egypt. What a scene would be laid open to them! One statue and sarcophagus, brought from Memphis, was buried 130 feet below the mound surface. Who knows but that the greater part of old Mempis, and of other glorious cities, lies almost unharmed under the sand! Who can say what armies of sphinxes, what sentinels of colossi, might start up on the banks of the river, or come forth from the hill sides of the interior, when the cloud of sand have been wafted away?" All will be discovered in good time; we are not yet ready for it; it is desirable we should be farther advanced in our power of interpretation before the sand be wholly blown away. But, in truth, it will need a high wind to do it, begin when it may.

Copper wire, the thirteenth of an inch, will sustain 302 lbs.; lead, 28 lbs.; tin, 34·7 lbs.; zinc, 110 lbs.; silver, 137 lbs.; gole, 150 lbs.