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THE CENTENNIAL SUBSCRIPTION.

The centennial managers are taking the right course to impress upon the people the importance of the great celebration of 1876. The address which we publish in another column is a business-like, straightforward document, which sums up the past progress, present condition and future needs of the enterprize in very few words.

There are scores of manufacturers who intend, beyond doubt, to be represented in the Centennial, who will partake largely of the advantages it offers and who are abundantly able to take up the remaining shares of stock without feeling the outlay. It is time that the jealous feeling against Philadelphia should die out; in this city it has disappeared, and there is an earnest desire for the unequivocal success of the work.

It is too late also to continue an unseemly dissension over the question of a national or international exposition. By its official acts, which cannot be honorably recalled, the government has invited other nations to participate in our festival, and many have already signified their intention of so doing.

It is moreover to be the largest and grandest exposition that the world has yet beheld. In point of space alone, its

buildings are to cover 3,000,000 yards, against 2,530,400 and 481,500 square yards filled by the Vienna and Paris fairs. The time remaining is but two years, and the greatest activity will be necessary to complete preparations during that period. It is for this reason that the appeals now before the people are doubly urgent. We trust that the response will be both speedy and adequate.

THE FAMINE IN BENGAL.

Accustomed only to unbroken plenty, it is happily impossible for American minds to form any adequate conception of a state of things like that now prevailing in Lower Bengal. The haziness of our knowledge of Indian geography helps still more to lessen the effect of the pictures of human wretchedness outlined in the cable reports. We are incapable both of estimating the extent of the troubles there, and of supplying from our own experience the unreported details.

As mapped by Sir Bartle Frere, the stricken district is shaped somewhat like a clumsy boot with a thick foot and an expanded top—the toe resting on the Hooghly, the heel on the Brahmapootra three hundred miles away to the north, the leg covering the broad valley of the Ganges to the westward, a distance of five hundred miles, with a breadth from one hundred and fifty to three hundred miles.

Throughout this vast area, protracted drouth last fall caused the almost total loss of the rice crop, the principal food resource of the people, who have been brought in consequence to the brink of starvation. Indeed had assistance from without been less prompt or less generous, the victims of famine would have been numbered by millions. Even with the most untiring and liberal efforts of the government of India, supplemented by the gifts of the charitable world over, deaths from starvation have already been numerous, and more must follow.

The first part of the task is more difficult to perform in Bengal than in any other part of India. It is at once the richest and most unfortunate province of the Empire, the victim of greater wrongs and more pig-headed political blundering than any other. In no other part of India is there so great a lack of administrative machinery competent to grapple with the evils of scarcity and famine, the native system having been destroyed and nothing efficient put in its place.

The distribution of food is made still more difficult by the system of caste, stronger in rural Bengal than in any other part of India. The ordinary Hindoo diet is not only restricted to a very limited range of vegetable diet, but even that must not pass through the hands of one of lower caste. He will starve rather than touch forbidden food, though of the most tempting and nutritious character.

It has also grappled with the second part of the problem with considerable earnestness. Many extensive works of internal improvement—railroads, canals for irrigation and commerce, and local roads which had been suffered to languish through false economy—are being pushed to completion by the thousands of agricultural laborers thrown out of work by the failure of the crops, and driven to the public works by need of food. Had these safeguards against famine been completed in time, it is safe to say that the greater part of the existing distress would have been prevented.

G. W. P., M. D., writes to point out that Mr. R. B. Forbes' suggestion as to calming the sea by means of oil originated with Benjamin Franklin, who saw the effects produced by the accidental upsetting of a barrel of oil, while crossing the Atlantic. It is described in Franklin's autobiographical work.

EREMACAUISIS VERSUS BURIAL AND CREMATION.

BY PROFESSOR ALBERT E. LEEDS.

Is there no other alternative in the disposal of the dead than our present practice of inhumation and the proposed cremation? The shortcomings of the former, and the long catalogue of hurtful consequences, are conceded; but are the superior advantages of cremation established? Passing by the social, æsthetic, and religious considerations involved, can the advantages which are claimed for cremation, by those who profess to advocate it on scientific grounds, be regarded as proven? Is the immediate conversion of the highly organized and nitrogenized tissues of the body into certain gases and water, the most economical method of returning to the earth the forces and substances needed for its fertilization? No: on the contrary, cremation would proceed in direct violation of well ascertained principles in the use and economy of natural forces; for all the power exerted by the burning fuel, to break up the animal tissues into carbonic acid and water, would have to be put forth again in order to recombine them into those compounds of carbon, hydrogen, and oxygen, which make up the cells and fibers of animals and plants.

It would be well, then, before resorting to artificial devices and patenting improved forms of furnaces for most rapidly getting rid of the dead body, as it is feelingly called, that we should turn to Nature and take from her a few preliminary lessons. We shall find that she seldom applies the torch, while all the while accomplishing her end. There is not a rotting log, a fallen leaf, or a dead insect, worm, or animal, which is not burning slowly, combining insensibly with the oxygen which is present in the air or dissolved in water, and becoming converted into fertilizers. Regarded in this aspect the whole world is a cemetery, and the tropical forests along the Niger and Amazon are densely populated ones. Yet we do not find that pestilences make life impossible to the survivors. The ground is black with organic remains, and furnishes beneath its surface such stores of food that it supports a subterranean population, almost as vast as that which teems above it.

Our error is, and has been, that, in this as in other cases, we have done wrong by interfering with or only partially obeying the laws of Nature. While professing a belief in the immortality of the soul and the perishability of the body, we have acted as though the body should be immortalized; and, by placing it in stone vaults of Cyclopean masonry or in non-oxidizable metallic envelopes, have endeavored to thwart the operation of natural forces and prevent the return of the effete to the realm of the useful. In the burial of the dead, the coffin is sunk beyond the reach of infiltrating waters and frequently surrounded with impermeable clay, than which there is nothing better to exclude the operation of decomposing agencies. We rightly view with reverence the spot where a dear friend is laid, just as we do the ground where some great achievement was wrought, although we know that every vestige of his body has perished. Why then attempt to prolong by a few years the pitiful remains? This idea has had but the effect of populating the ground, and rendering it necessary finally to desert it, and seek some new cemetery. Instead of so doing, make the spot for ever hallowed, and let our cemeteries remain, while permitting Nature, untrammelled or assisted by means which she herself teaches, to dispose of the bodies.

This is not an empty suggestion. Chemistry points out to us what must take place, and suggests a variety of substances and means for accomplishing the desired result. The stoutest granite exposed to the action of air and rain eventually crumbles into sand; and for most rocks, a few years suffices. Great beds of limestone may be dissolved by the action of surface waters percolating through the ground. Cannot similar agencies dispose of the few pounds, mostly of carbonate of lime, making up the animal skeleton? It would not be necessary to employ chemicals having a violent caustic action, like lime or acids, which, in consequence, suggest operations repulsive to our sentiments of tender respect for the dead. It would suffice to surround the body with some substance which would carry oxygen to the tissues, and allow the products of the slow combustion thus effected to be distributed through the soil. Such a substance, for example, is the hydrated oxide of iron. This is the same material that gives the yellow color to the soil, and which Nature has diffused everywhere to sweeten the ground and assist in the oxidation of organic remains buried in it. There is certainly nothing objectionable in the appearance of oxide of iron, a body which forms the coloring matter of yellow and brown ocher; yet, as Professor Wurtz suggested, it probably would be sufficient to lay the body in this, in order that every vestige should be destroyed in a few years.

We propose, then, that cemeteries should not be transient, or banished to distant spots, or allowed to be located in unsuitable places, or managed (as at present) as successful speculations, frequently in defiance of well known sanitary laws. Instead, let them be made permanent, bearing a definite proportion in size to the surrounding population: not restricted to the outskirts of cities, and swept away by the advancing tide of humanity, but located upon sites well adapted