

weight of his presence, or his voice, to accept his share of this lodgment of the power for good. That is helpfulness; it is moral activity in behalf of the common weal. In God's universe, none of these things are lost; not a deed; not an influence; not a whispered prayer for that which is right. I am not saying that all men will, but that every man can, rise to the point of an interested factor. Men educated to beer halls and dog fights and the lower kinds of amusement, will not rise to the level of these finer things. They have no desire to do so. It takes the touch of the Infinite to make such men something else than sodden, egoistic, lower forms of life. The Greek called man *anthropos*, one with face turned upward. And what shall be the use of all our wealth and wealth-creating inventions, all our civilization, all our arts and sciences, if these do not turn man's face upward and create a higher range of personal feeling, ambition and action for the race. Not only are we entitled to luxury and culture and refinement, but we should have a high spirit of beneficence, guided by justice, and justice adorned with the garlands of a judicious benevolence. Under this our charities should be multiplied, that we may lift from the weak and unfortunate a portion of that weight of Cane which crushes into dumb despair half the human race. Born of such a spirit, will come honor and honesty and courage and self denial and modesty and charity, qualities which enlarge their influence from the fireside to the neighborhood, until they permeate the community, and public sentiment will at last become imbued with the spirit of personal worth.

C. B. CARLISLE.

In the struggle of life is it not well for the farmer to pause a few moments to consider where he is drifting, what he is working himself and his family so hard for, what he expects to accomplish in the end? We can name a hundred Montana farmers to-day, who have, in a manner, worked themselves and their families to death. True they are not literally dead, only dead on their feet, as it were, dead to every enjoyment but making money, and are candidates for the graveyard ere the prime of life is reached. Yes, we can name a hundred farmers, who, with their families, have worked and are working every spark of ambition out of their lives, simply to get rich. How rich they cannot tell, for the man has never yet lived who has accumulated enough. Many who slave and toil thus have obtained a competency, obtained at a cost of every comfort that goes to make life pleasant, at a cost of their strength and ambition, and even now had they the disposition and capacity to enjoy themselves, have not the health to do so. This is a mistake. The chief object of every farmer should be the comfort of his family. His home should be his Mecca. It should be his palace; and while it is well to practice economy, and to impress such habits on rising generations, it will not do to enslave one's self or the members of his household. There is nothing in wealth to justify it. There is more in a contented mind, a pleasant and happy home than in all the gold of Ophir.—*Husbandman.*

THE *Avenir Militaire* gives us some particulars concerning a torpedo cannon ball invented by Captain Coudray, of the navy. Four years ago the captain presented his projectile to the authorities, who at once ordered experiments to be made with it at Gaves, near Lorient. We are told that for some time past the modest inventor has been engaged in manufacturing his projectile under the supervision of a special commission named by the Minister of Marine. At first it was found that all projectiles discharged at the mean velocity of one hundred and fifty meters a second rebounded on striking the object at which they were fired. Time was afforded to Captain Coudray to improve his invention, and it seems that, in spite of such hard striking on the part of the *savants*, he has succeeded in curing the defect complained of. The torpedo cannon ball, we are assured, now travels at the rate of three hundred meters a second, and instead of rebounding on striking a ship, glides along its side, and never loses contact until it explodes. The last cannon balls constructed contain a charge of forty pounds of guncotton, although twenty-five pounds is said to be sufficient to blow up the biggest vessel. It is stated that these projectiles can be fired to a much greater distance than the Whitehead.

A project is on foot for tunneling the "Great Divide." The divide is the Rocky mountains, and the point proposed to be tunneled is under Gray's peak, which rises no less than fourteen thousand four hundred and forty-one feet above the level of the sea. At four thousand four hundred and forty-one feet below the peak, by tunneling from east to west for twenty-five thousand feet direct, communication would be opened between the valleys on the Atlantic slope and those on the Pacific side. This would shorten the distance between Denver, in Colorado, and Salt Lake City, in Utah, and consequently the distance between the Missouri river, say at St. Louis, and San Francisco, nearly three hundred miles; and there would be little more required in the way of ascending or descending or tunneling mountains. Part of the work has already been accomplished. The country from the Missouri to the foot of the Rockies rises gradually in rolling prairie, till an elevation is reached to five thousand two hundred feet above the sea level. The Rockies themselves rise at various places to a height exceeding eleven thousand feet. Of the twenty most famous passes, only seven are below ten thousand feet, while five are upward of twelve thousand feet, and one, the Argentine, is thirteen thousand feet. Of the seventy-three important towns in Colorado, only twelve are below five thousand feet, ten are over ten thousand feet, and one is fourteen thousand feet. Passes at such a height are, of course, a barrier to ordinary traffic, and the railways from the Atlantic to the Pacific have, in consequence, made detours of hundreds of miles, leaving rich plains lying on the western slopes of the great snowy range practically cut off from Denver and the markets of the East. The point from which it is proposed to tunnel is sixty miles due west from Denver, and although one of the highest peaks, it is by far the narrowest in the great back bone of the American continent.—*Scientific American.*