

which may contain further refutations. Madame Blavatsky herself appends to the pamphlet a brief and indignant denial of the grave charges which have been made against her.

— The success of the U. S. fish commission has caused complaints in England of the negligence of that government in matters pertaining to the fishing interests. The *Athenaeum* states that at the present moment there is not in the three kingdoms one scientific naturalist employed by the government to whom it has the right to apply for information on fishery questions. It is now said to be the intention of the government, however, to form a new fisheries board or commission.

— Caustic lime, ground fine, and consolidated by a pressure of forty tons into cartridges two inches and a half in diameter, is used in some collieries for getting coal, where gunpowder would be dangerous. After the holes are drilled in the face of the coal, an iron tube half an inch in diameter, with a small groove externally on the upper side, and several perforations, is inserted the whole length of the hole. The cartridges, which have a groove to fit the tube, are then inserted and lightly rammed, and the hole tamped. A small force-pump injects through the tube a quantity of water equal in bulk to the lime. The water escapes through the perforations and along the groove, saturating the whole, and driving out the air. The tube is then closed by a tap to prevent the escape of the steam, which, by its force, cracks the coal away from the roof, and then follows the expansion of the lime.

— A system of irrigation is on trial in Colorado, in which the water is conducted through pipes, laid a little below the surface several feet apart, and having small holes at intervals on the upper side to permit of the escape of the water, which percolates through and thoroughly moistens the soil. The advantages are claimed, that the surface of the soil is not chilled by flooding, and that the ground is not subsequently baked by the hot sun.

#### LETTERS TO THE EDITOR.

*\*\* Correspondents are requested to be as brief as possible. The writer's name is in all cases required as proof of good faith.*

##### Phylloxera.

WHAT evidence have we on the following points in regard to phylloxera? —

First, was it well known as a pest in this country before its introduction abroad?

Second, when and how did it reach Europe?

Third, why is it more injurious in Europe than in its native habitat? and

Fourth, is there any reason to suppose that the pest will be mitigated by natural causes as time goes on?

A. M. D.

New York, March 29.

#### Certain questions relating to national endowment of research in this country, and their importance.

I have read with interest Dr. Shufeldt's arguments in *Science*, favoring endowment of research, and the recognition on the part of the government "of those persons in her employ who have from time to time demonstrated their fitness to perform certain work," but I would like to ask the talented author why he would restrict this recognition to those in the government's employ, or why, indeed, there should be any distinction made between such men and other able men in civil life. The physician who finds that he is far better qualified for some other pursuit than that of medicine gives up his profession, and accepts a position where his talents can be better applied. Is not the same resource left for army officers? Dr. Shufeldt will hardly claim a monopoly of talent in government employ; then why are not the many struggling students of science in civil life who have shown evidence of their fitness to perform certain work equally entitled to recognition? By all means, if such a scheme is feasible, endow or assist original research, but put all citizens absolutely on the same level. While one may sympathize with the talented officers who are compelled to undergo wearisome drudgery not akin to their tastes or inclination, it cannot be forgotten that there are many other equally talented scientific men who have to struggle without even the assurance of a comfortable salary. Endow research, but let the endowment be impartial.

W. S. N.

New Haven, Conn., March 27.

#### The anachronisms of pictures.

Supplementing your recent publications touching the above-named subject, an example interesting to geographical botanists may be recorded among the existing curiosities of the national capitol.

The senate committee in charge of the fine arts has secured a picture representing a well-known incident in the life of Columbus, that occurred in old Spain anterior to the discoverer's first trans-Atlantic voyage. This picture is hung at the head of the marble stairway near the seats reserved in the senate hall for the ambassadors of foreign powers. It proclaims to the world that the plant (the *Opuntia* [cactus of Linneus] *ficus indica*, or prickly pear) which has figured in Mexican patriotic symbolism from time out of mind, and which holds the most prominent place in the oldest of Aztec legends, — the plant which Mexico regenerate has chosen as an emblem sanctified by association and antiquity, and has placed upon her banner and her dollar, — this senatorial picture proclaims that this cactus, so dear to the patriotic Mexican heart, is not originally Mexican, but that it was a possession of the usurper, and in pre-Columbian times grew by the dusty wayside in old Spain. That it had not reached Europe at the date of the incident represented in the picture, there can be no doubt.

I would refer the student to Alfonse de Candolle's work, 'Origin of cultivated plants' (*Appleton*, 1885), p. 275. Speaking of the *Opuntia ficus indica*, the eminent botanist says, "It was one of the first plants which the Spaniards introduced into the old world, both into Europe and Asia. Its singular appearance was the more striking that no other species belonging