

thinks he holds the key of creation in *caloric*, by which he means not only all that was understood by "caloric" before that once honored term was laid away in oblivion with the other names of nonentities gone out of fashion, but everything else. His *caloric* is a subtle, eternal, omnipresent, self-repellent fluid, the "cause of gravitative planetary motion, heat, light, electricity, magnetism, chemical affinity, and other natural phenomena," as he modestly asserts on the title-page of his *One Great Force* (Buffalo: Breed and Lent).

To men of ordinary genius, the impossibility of proving the existence of such a universal motor grievously interferes with their easy progress; but to men like Mr. Johnson such a difficulty never occurs. The fact that they cannot explain things without it, is proof enough that it *must* exist. That settled, all is plain sailing. When an otherwise unaccountable phenomenon turns up, all they have to say is, "Nothing but—jigger-jigger—can do that!" or, "If jigger-jigger cannot account for that, *what can?*" and the rash objector is confounded by his own ignorance. Unfortunately, however, such philosophers can rarely content themselves with this achievement. They must undertake to tell how jigger-jigger acts, and then they are outrageously funny. They will go on, page after page, contradicting themselves and every other phenomenon of nature with a serenity that is all but sublime. Mr. Johnson's effort is an admirable type of productions of this class of self-elected reformers, who think they can set Newton, and Faraday, and Tyndall, and all the other scientists to rights without first mastering the rudiments of science.

"SCHOOL-HOUSES."

ALFRED WALLACE asserts that many of the lower orders of creation exhibit individually as much independence in the construction of houses as man does in his: that men go on from generation to generation copying inherited models as blindly as birds and beavers. If he had ever traveled in this country, the naturalist would probably have cited in proof of this observation the progress of the primitive Yankee school-house across the continent. The bees that lead civilization westward are not more conservative in their building instincts than the carpenters that follow. Everywhere from Maine to Minnesota the traveler will find at road-crossings the same nondescript structures too small for barns, too ill-proportioned for dwellings, too much neglected and desolate for out-lying farm buildings, indeed "too repulsive in all respects and exhibiting too many marks of parsimony to be anything but"—school-houses.

Public architecture—barring always the new court-house—is not our stronghold; nor is it likely to be, so long as the first impressions of the building art are gained, as a rule, from public structures so wretchedly unartistic as the average school-house. However just may be our national pride in our common schools, the housing of them redounds very little to our credit; as many of us became painfully aware four years ago at the Paris Exposition. A grand idea was prob-

ably never more pitifully represented than when an ugly little wooden school-house was sent all the way from the interior of Illinois to the Champs de Mars, to show the assembled world our high regard for popular education. A Webster's spelling-book would have been as felicitous a representative of the results of national culture. Yet, bad as it was, the sample—to use a commercial figure—was far too good to represent fairly the character of the stock. It was new and clean; and happily it was impossible to transport the forlorn and unsightly surroundings of the average school.

The sound advice which Mr. *Johannot* gives in his handsome work on school architecture (*School Houses*: J. W. Schermerhorn & Co.) touching the structure, furnishing, situation, and adornment of school buildings, will go far, it is to be hoped, to make it possible for us to send a typical school-house to some future Exposition without being so roundly and so deservedly laughed at. His book should be in the hands of every school committee, not because it is precisely what it should be, but because it is the only work that attempts to give the instruction on this subject so sadly needed by school officers the country over. If committee-men and carpenters will take care to follow the author's suggestions, and equal care to shun the curiously ugly designs that Mr. Hewes has invented to illustrate the work (in imitation of "examples in false syntax" given in grammars, we suppose), a blessed reformation may be inaugurated in the external features of our country schools. The chapters on lighting, heating, and ventilating school-rooms are calculated to do much good. Mr. *Johannot* adopts the principles of ventilation enforced by Mr. Lewis W. Leeds, and copies several of his admirable colored illustrations of the movements of hot and cold currents. The sensible chapter on out-buildings is especially praiseworthy.

"HOW TO DO IT."

IN telling the young folks *How to Do it* (J. R. Os-good & Co.), Mr. Hale has gone over a worn-out field, and made it blossom like a clover lot. He has a happy knack at giving sound advice in palatable doses; and by introducing his exemplars in the guise of natural boys and girls, he gives a dramatic point and force to his instructions that cannot fail to charm as well as instruct the young reader. In sixteen spicy chapters the conduct of juvenile life,—how to live, how to talk, how to read and write, how to go into society, how to travel, how to behave at home, at school, in church,—everything, in fact, that civilized boys and girls are expected to do, is reviewed and illustrated in a style as sensible as it is breezy and delightful. The chapter on going into society is specially admirable. The sunshine of Christianity is Mr. Hale's social motive power, and the four rules of his philosophy are, to look up and not down, forward and not backward, out and not in, and to lend a hand. The application of these rules to juvenile life forms, in a double sense, a good part of the book.



MATINÉE AT THE ACADEMY OF MUSIC.