

insignificant; yet, if counted in, swells the percentage.

Hypermetropia again differs from Myopia in the pupil not being so much harmed by school life. Indeed, he gets along very well if he be suited by a pair of glasses which exactly focus rays on his retina. What I said last month as to the use and necessity for glasses may be repeated here, but it is unnecessary. The effect of the convex glass is to deliver rays to the eye slightly converging which before were parallel, or else, if diverging before, to deliver them less so. This cannot be any more improper than to deliver to the stomach food properly masticated and prepared for it, and which it can thereby manage the more readily and without inviting a gastric disease.

The oversighted pupil, it follows from what has been said, sees black-board and map fairly. He fails for close work, especially if prolonged or over fine print. His lessons to be committed at home are badly got. He does not excel or does so under overwhelming disadvantages if his defect be of high grade. He is disgusted with school life. Let the reader discover a typical case of average or high degree who is anxious to excel and who is urged to do so at home as well as in school, and the chronicle of his sufferings will serve to impress the importance of this matter home to him with more emphasis and more interest than the printed page can convey.

#### COAL GAS IN THE SCHOOL-ROOM.

At this season the janitor or caretaker of the school has assumed duties not required in Summer. He manages, often mismanages, warming the school building. Where this is done by hot air, or by pipes, conveying hot water or steam, we shall, for the present, have nothing to say. Where it is warmed by a wood fire the same principles apply as when warmed by a coal-consu-

ming stove, but wood is more easily managed than coal, in so far as avoiding filling the school-room with combustion gas is concerned. Practically, the management of the coal furnace, known as the base-burner, is all that need concern us. It is important to have this managed right in a school-room with fifty or more pairs of lungs demanding more oxygen than already exists, and exhaling carbonic acid constantly, with, as a rule, too little ventilation, and too little cubic space per pupil. If the base-burner give out noxious fumes, mainly carbonic acid, the school-room may be a second Black-hole of Calcutta. The stove may be either an engine of disease, yes and death, or an adjunct to ventilation, according to how it is managed. To this the intelligent oversight of the teacher is necessary. Ignorant janitors cannot be depended on, any more than ignorant nurses in the sick-room. Attention to what follows will, it is believed, make the matter easy and simple.

The base-burner consists of a *firepot* with movable grating for a bottom, a *reservoir* covered by a lid, with space between firepot and reservoir to allow of combustion. Pipes convey away the gases, and should do so wholly. The pipes have a movable damper which as needed obstructs the egress of air. The ingress of air is from the grating below the firepot, and from the mica-lighted doors surrounding the glowing coal. Air may enter at the edges of the doors, also where the plates of mica meet the door frames. *These also permit the escape of noxious gases, and that more especially where the egress is obstructed.* Hence the deduction: DO NOT OBSTRUCT THE EGRESS. How are we to control the flame? *By limiting the ingress of air.* Close doors tightly, and do not shake too much ashes down, as they are the best obstructor to ingress. As soon as the dampers are turned, it is changed into a noxious furnace emitting literal poison. The damper, it is true