

little light being a dangerous thing. We will suppose some pedestrians benighted in the Alps. So long as it is quite dark they keep where they are, and are safe; but directly they get a gleam of light they are tempted to move, and having only a little light they incur very great danger of breaking their necks. And yet light in itself cannot be called dangerous, whether little or great. And no more can knowledge. Knowledge is dangerous only when it lead us to presume and fancy we know what we do not. You will understand me best by an example. A young man studies the theory of farming. He then tries to carry it out in a new neighbourhood; and, relying on theory, he sets at defiance the traditional practice of the other farmers in those parts. They prophesy that no good will come of these new-fangled ideas, and very often they prove right. Why is this? Is the theory wrong? Not at all. The young man seems to fail from his knowledge: he really fails from his ignorance. If he knew all the conditions of the problem before him, he would work out right results; but he does not. In applying his principles he neglects some peculiarities of the soil or climate, and the error puts everything wrong. The humdrum farmer, relying only on use and wont, is quite sure to succeed to a certain extent, not nearly as well as he might if he really knew the theory of his business, but quite enough to enable him to laugh at theoretic learning. And we all have a natural satisfaction in laughing at those who without experience assume that they know our business better than we do ourselves. As I said, everybody thinks he can teach the school-master, and we find it a great strain on our politeness to listen patiently, when we are told by parents and other lay persons how we ought to manage our boys. On the other hand, if we endeavour to give our boys any insight into business matters, the business men laugh us to scorn. I shall never forget the contempt an English merchant once expressed to me when I told him that in a commercial school at Leipzig the boys were shown samples of produce. But the contempt is misplaced on both sides. We school-masters might learn much from outsiders, and the Germans have proved the advantage of learning the theory of business at school. Let us make up our minds then, once for all, that there is no real antithesis whatever between theory and practice, and that the same thing cannot be both true and false. This once settled, we must admit that in applying theory the greatest care is needed to enable us to calculate all the forces. Otherwise our calculations will mislead us, like those of a mathematician whose dynamical problem would be all right if he had not forgotten friction. Let us welcome knowledge, even a little knowledge, of what we are undertaking to do, and be sure that knowledge cannot do us any harm if we are sensible and modest in the application of it.

I cannot to-night attempt to give any notion of the ideal training of the teacher. I have a much more simple object in view. I wish to give a few hints to young teachers, and to those who have young teachers under them, as to what may be done in our present circumstances.

Do the opposite of what is done, says Rousseau, and you will be pretty sure to be right. And really, when one thinks how the art of teaching is acquired by most of us, we feel inclined to agree with Rousseau. A celebrated oculist was once complimented by a brother professional on his wonderful skill in operating. "Yes," he said, "I can do it now, but I spoilt a hat-full of eyes in learning." And this is the way with us teachers. Some of us get to know our business at last, but how

many pupils do we injure by our stupid bungling when we begin? And, unfortunately, teaching is a thing in which practice by no means necessarily or invariably makes perfect. We will suppose a teacher begins in the usual English method. We will suppose he or she (of course I am thinking of teachers of both sexes) has the two indispensables, competent knowledge of the subjects and intense interest in the work. Well, he finds himself all of a sudden with a number, often a large number, of pupils before him, and he has to teach these pupils certain subjects. Not a hint is given him how to go to work. Nobody has time or inclination to attend to him, and tell him where he blunders, or what he should aim at. The pupils are generally the youngest of the most stupid in the school. He soon finds that they do not learn one quarter of what he thinks they ought to learn, and he has no means of ascertaining how far he himself is to blame for this. And then comes the one fatal mistake in most of our school teaching. *He is overworked.* Probably the amount of work thrown upon him would tax all the powers of an experienced master who knew exactly how to set about things, and had acquired facility and speed by long practice, to say nothing of devices which all old teachers resort to for economizing labour. And this amount the beginner, who goes to work most conscientiously and does everything slowly both from want of skill and excess of care, is compelled to deliver as his daily tale of bricks, as though he had straw. Harassed in this way, the young teacher is compelled to think more of the quantity than of the quality of the work he accomplishes. He then reconciles himself by degrees to the wretched performances of his pupils, and supposes that the standard with which he set out was quite Utopian. In a very little while he is, in a sense, a trained teacher—trained to scramble through his work anyhow, and content himself with routine hearing of lessons—trained to accept failure as a law of nature—trained to abandon all the hopes and interests with which he started, and to laugh at them as theoretical. It is because I know that this is the result of your present plan of no-training, that I am so eager to see proper training instituted.

The very first thing that I would urge is that young teachers should have ample time for their preparation and teaching. As you know, the German teacher has to spend a "learning year" without salary, during which year he looks about him in a good school and only does a small amount of teaching, and that under supervision. We cannot expect our young teachers to do this at present; but I think for the first year or two they should be considered learners, and should neither be worked nor paid as if they knew their business. They should never have a class handed over to them, but they should teach under some experienced master, and *he* should be responsible for the result. The learning-teacher, as I may call him (though, in fact, all teachers who are good for anything are learning-teachers all their lives)—the learning-teacher *par excellence* should have ample time for preparing his lessons; he should often give them in the presence of *his* teacher, and should himself see teaching in all parts of the school. The advantages of seeing teaching are indeed very great. By seeing different teachers at work we in the end get some notion of uncommon excellencies to aim at, and of common failings to avoid. We also get sympathy with the the taught. Some of you will remember the lad's answer to the question. Why, when Philip parted from the eunuch of Ethiopia, the eunuch went on his way rejoicing? The boy said it was because Philip had done teaching him. Now I never realised the