

teacher alone, examining books or something of the kind. Instead, I found eight of the pupils at their desks, working most industriously. She explained to me that they were endeavoring to "clear their record" for the day. When the usual time had passed the papers were laid upon the teacher's desk and the children left the room. I was curious to see the exercises. "Here is one done by a boy who is painfully nervous and bashful when answering in class," said the teacher. "He invariably makes some mistake or is unable to make his answer intelligible, yet he will stay after school hours most willingly, and write out his work without an error. I do not excuse him from answering in class, but I think it is well to give him an opportunity of improving his record." Other exercises were shown me, done by scholars who were absent the day previous, and had not been able to get the few home-lessons assigned. These had studied the work at recess and noon and had now written it as well as could be expected. The attempt was certainly a great deal better than allowing the lesson to pass unstudied.

There was a spirit of cheerfulness and willingness about the children that was very pleasing. It was evident that the "staying in" was considered more as a privilege than a punishment. Of course there are in every class those who cannot appreciate an opportunity of improving a bad record. Those have to be dealt with in another fashion. The majority, however, have pride enough to wish to remove "imperfect" lesson marks when such have been received. The plan and the spirit created by it seemed to me in this case to be very good. Wisely managed, it should result in careful and satisfactory work. There is a danger of careless preparation to be guarded against. Some pupils may begin to depend too much on the "clearing off." This may be largely overcome by giving extra credit for perfect lessons at the regular time. Of course, as I said before, those who habitually shirk their work need different treatment, requiring more of law and less of grace.

A LESSON IN NUMBER.

BY GEO. P. BASS.

ONCE upon a time a teacher was sitting at his desk in his home study, when a five-year-old child came to him with a box full of wooden discs. His mother had bought them for him to play with. In some mysterious way he had learned to count ten things. She had not tried to teach him. He had not attended school. This teacher was busy studying "methods" from a book, when this live boy shoved a chair up to the table and poured out of his box something less than a peck of these wooden discs. The teacher went on studying his book. The boy counted out ten of these discs and placed them in a row, talking to himself all the while. The teacher began to divide his attention between the book on methods and the boy who knew nothing about method. The boy placed another row with ten in it beside the first row and said, "Two tens." The teacher here recalled the fact that when the boy had completed the first row he did not say one ten but said *ten*. The boy made another row and said *three tens*. He kept this up without a word from the teacher and without being aware that the teacher was watching him. When he had finished the tenth row, he said "Ten tens," and then addressed the teacher as follows: "Ten tens, see! How many is ten tens?" The teacher, (without correcting the boy's grammar—just think of it!) said, "One hundred." The boy immediately climbed out of his chair and ran to his mamma in great glee and said, "Mamma, mamma, ten tens is a hundred, ten tens is a hundred; I've got 'em on the table; come and see, mamma, come!" Mamma came and the little fellow was delighted. Mamma was, too. So was the teacher. He laid his book down and began to study the boy. He asked him to divide his hundred buttons, as the boy called them, into two equal parts. The boy looked for a moment and put his finger down in such a way that there were five tens on either side and said that five tens is one-half of ten tens. Where or how he learned this no one knew. The teacher touched two rows of tens, using his thumb and fourth finger; and asked the boy to see how many two tens he could find. He soon reported five. Then the teacher told him that we call two tens a fifth of ten tens. And the boy said, "I know why. It is because it takes five of them to make ten tens." The teacher then touched one row and said,

"What is this?" The boy said, "One ten." "Why do you call it a ten?" asked the teacher. "Because it has ten buttons in it," said the boy. He then added, "Two buttons are one-fifth of ten, and one button is one-tenth of ten." When, where or how he learned this last fact no one knew. Judging him by the course of study, he was a prodigy. But he was not. He was just an ordinary live boy of flesh, blood, and brains. This teacher had learned a lesson in pedagogy as well as a lesson in number. If a child can count two and five he can soon grasp ten. Try him. Give him ten buttons, blocks, or anything he can handle, ask him to see how many twos he can find. He will readily tell you that he has five twos. How many fives! Two fives. Now put them all together and tell him that in the group we have ten. Now divide it into two equal parts. He knows often what each part is called. If he does not, tell him. It is just as easy for him to learn it now as it will be a year hence.

Give him twelve things. The farmer boy at six years can count a dozen eggs. The city boy, a dozen bananas. Have them separate the dozen objects into two equal parts, into three, into four, into six. Pointing to one of the two equal parts, ask what part it is of the dozen, the pupil will say one-half. Point to one of the *three* equal parts and say one-third of a dozen. Now point to one of the four equal parts and the pupil will say one-fourth of a dozen, if you will give him a chance. He will be able by this time to point to one-sixth of a dozen himself. Now he knows that half one dozen is six. Ask what one-half of six is. He will tell nine times out of ten. In fact he will be delighted to find the half of every even number from two to twelve inclusive. He will wish to tell that four is the half of eight, and that there are two fours in eight. Don't be surprised if he asks how much two eights are. Be encouraged and tell him. But the course of study! Sure enough, we had almost forgotten it. Well, what of it? It says we must not go beyond ten during the first year. No, it says to teach from one to ten inclusive, which means about the same thing. But if your pupils can do more, all will be glad to have them do so. The course of study is for the pupil, not the pupil for the course of study.—*Indiana School Journal*.

COURTESY.

BY M. C., OWEN SOUND.

THERE is no true teaching of politeness in a school-room which is not emphasized by example. "Johnny, when it is necessary to pass in front of a person like that, excuse yourself; go back and say, 'Excuse me.'" Just as we might tell him: "Johnny, this is a preposition; say, 'a preposition.'" He will have just as clear a conception of the truth intended in the one case as in the other.

Is Johnny's teacher ever guilty of little rudenesses to him, for which she never "excuses" herself? If so he has probably never discovered that a great many things he is in the habit of doing every day are rude, for does not his teacher do them also?

Occasionally he is told that this or that is not polite, and (unconsciously, it may be) he concludes, with regard to these things, that since it is all right for the teacher to do them, it is all right for him to do them too, except in a few special cases.

But does Johnny's teacher sometimes add injustice to rudeness, for these two are fast friends? Does she ever, by touching his elbow at the wrong moment, cause him to form a letter awry, and then pass sternly on with, "Keep your arm in," instead of the regretful, "I beg your pardon?"

Does she ever borrow his lead pencil and return it with the point broken, or lose his knife and neglect to buy him another? If so, what amount of lip-teaching, think you, will be necessary to counteract the power of her example?

Nothing less will do in a school-room than the courtesy we would practise were we presiding over an assembly of grown-up people, in every respect our equals. Nothing *less*, surely, for it is over those weaker than ourselves we are placed, our inferiors in knowledge and experience.

Fellow teachers, try being courteous with your pupils—not affected, not condescending, but genuinely *courteous*. Try it with your troublesome pupils and see how quickly they will respond. Watch them growing in fairness and

generosity towards their fellow-pupils, and see if their growth in these things towards you is not the reflex of *your growth in these things towards them*. No fear of endangering your dignity. You will have, as never before, the respect of your pupils. Many a teacher is weak as a disciplinarian because he or she has not yet learned that courtesy is a mighty factor in the discipline of a school-room.

Question Drawer.

J. C. G. For the list of Entrance Literature Lessons, see advertisement of the Education Department in our advertising columns. For answers to other questions write to Education Department for the official circulars. The P. S. Leaving has not taken the place of the Entrance Examination.

A SUBSCRIBER.—Our Science Editor is of opinion that for a beginner in chemistry, studying privately and having no opportunity to do practical work, a recent edition of Roscoe's Elementary Chemistry, revised by Lunt, is very suitable. It is called "Elementary Chemistry for Beginners."

S. S. B. When a Third-Class Certificate has expired, the holder thereof may, on passing the High School Primary Examination, or an examination of a higher grade, and on proof of good character, and of efficiency as a teacher, obtain from the Board of Examiners of the county in which he has last taught, a renewal of the same for a period not exceeding three years, at the discretion of the Board. Application has, of course, to be made to the Board.

J. C. For this and all official information it is better to write direct to the Education Department.

Lord Lansdowne was succeeded as Governor-General of Canada by Lord Stanley, whose term of office expired in 1893. Lord Stanley was succeeded by the Earl of Aberdeen, who is the present Governor-General.

For information *re* Commercial Course, H. S. Drawing, etc., write to the Education Department, Toronto.

AN ENQUIRER. (a) For the meaning of "side-line" ask any farmer in a country district. (b) The duty of a Provincial Registrar is to register statistics of a provincial character, such as those of births, marriages, deaths, etc. (c) The maple leaf and beaver are used as Canadian emblems because of the prevalence and beauty of the one, and, in early times, the plentifulness and industry of the other. The one symbolizes both beauty and fertility, the other persevering industry. Perhaps there is also in each a suggestion of the hardness and vigour of a northern latitude. (d) With a map of the two continents before you, you surely will not find it difficult to detect three points of difference in the shape of North and South America.

B. M. asks (1) "How can two trains, each of which is longer than a given side-track, pass each other by means of such a side-track?"

We have never observed this being done, and cannot say from observation what is the actual method employed, but it can easily be done as follows: Let A and B be two trains, from the east and west respectively. Each train has ten cars, besides the engine and tender. The side track has room for only six or seven. Let A detach, say the five rear cars, run them backward to a sufficient distance on the main track, then enter side-track with the remaining five. B then passes to the east of the entrance to side-track. A with the five cars returns to main track and goes west a little way. B takes hold of the five cars A left on main track, draws them backward to side-track, shunts them, passes them, then returns, attaches them, this time to rear car, draws them on to main track, disconnects and goes its way eastward with