

FIG. 9.

one inch higher than the other, are made to suit the different sizes of the pupils.

RELATIVE SIZES OF SEATS AND DESKS.—

The desks and seats for pupils should be of different dimensions. We think it most desirable for two to sit together; and each desk for two may be $3\frac{1}{2}$ or 4 feet

long. The younger pupils being placed nearest the master's desk, the front ranges of desks may be 13 inches wide, the next 14, the next 15, and the most remote 16 inches, with the height, respectively of 24, 25, 26 and 27 inches. The seats should vary in like manner—those of the smallest class should be $10\frac{1}{2}$, the third 11, the fourth or largest class $11\frac{1}{2}$ or 12 inches wide; and being, in height, 13, 14, 15 and 16 inches respectively. All the edges and corners should be carefully rounded.

The desk for a single pupil should be, at least, two feet long ($2\frac{1}{2}$ is better) by 18 inches wide, with a shelf beneath—as indicated by the dotted lines in Fig. 3—for books, and a narrow deep opening between the back of the seat in front of the desk itself to receive a slate—as at *b* in Fig. 10.



FIG. 10.—TOP OF DESK.

The upper surface of the desk, except three inches of the part nearest the seat in front, should slope one inch in a foot, and the edge should be in the same perpendicular line with the front of the seat. The three inches of the level portion of the surface of the desk should have a groove running along the line of the slope, *a*, Fig. 10, to prevent pencils and pens from rolling off, and an opening at *c*, (same Fig. to receive an inkstand, which should be covered with a metallic lid. The end pieces or supporters of the desk should be so made as to interfere as little as possible with sweeping.

The following table is said to show pretty accurately the proportion which should exist between the heights of seats and desks for the various sizes of pupils; the corresponding width and length of the desks; and the proper distances between desks of the same size in the same row, so as to admit the chair between them.

Height of seat.	Height of front of desk.	Width of desk.	Length of desk per pupil.	Chair space between desks.
10 inches.	21 inches.	12 inches.	17 inches.	20 inches.
12 "	23 "	13 "	19 "	22 "
14 "	25 "	14 "	21 "	24 "
16 "	27 "	15 "	21 "	26 "

THE INK-WELL.—The ink-stand or well is an indispensable accompaniment of the desk, and, if not of a proper form or properly secured, often gives much trouble.

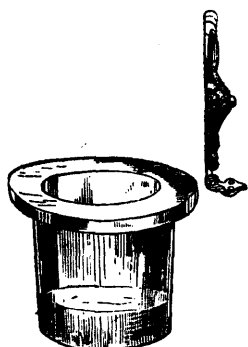


FIG. 11.

A loose ink-stand or bottle on a small desk, the greater part of whose lid is considerably inclined, is liable to be upset or thrown off. A wide mouthed glass cup with a rim to it, and let into the corner of the desk, is secured from falling or upsetting, but receives the dust of the room to the injury of the ink. Hence one let into the desk, with a hinged lid or cover, so arranged as to exclude the dust and yet not to be in the way of books, slates, &c., when closed, seems to be the best and cheapest expedient that can be adopted. Many wells have been prepared for these purposes. Fig. 11 in the margin will serve to convey the idea, without further explanation.

ARRANGEMENT OF SEATS AND DESKS.—

It has been frequently suggested that, in arranging the furniture of a school-room, the pupils should be faced towards a wall containing no windows, or, if any, that they should have close blinds or curtains; and that if possible this should be the north wall. It is also believed that the teacher's platform and desk should be across the end and not the side of the room; thus throwing the whole of the pupils more in front of him. In all schools, but especially in those of mixed studies and ages, there should be seats and desks of different heights to suit the respective sizes of the pupils. In such cases the smaller seats for the younger pupils should be placed in front,—that is nearest the teacher's desk,—in order to have them more under his eye and control. Seats and desks should never be allowed to touch the wall. If the size of the room will not allow a full passage next the wall, the desk should be kept at least six inches from it, both to allow the pupil near

it the free use of his arm, and to keep him from contact with the damp cold wall.

The following plate represents a new mode of arranging seats and desks, intended to save floor space without the use of the double desk. If found satisfactory in other respects, it will have the additional advantage of allowing more room for passages, and particularly for a wide middle passage, and for outside passages along the walls. The dividing or partition board seems liable to the objection of somewhat interfering with the arm in writing, unless the top of the desk be very large.

The engraving on page 72, represents the plan so plainly, that very little more is required to be said respecting it.

By this new arrangement two rows of desks are combined together, with a separating partition between them; or, with a standard at each end, the partition may be dispensed with. Two rows of desks, *A A* and *C C*, are shown, connected to each partition board, *D*. The teacher's desk is represented at *E*; *B* are the seats of the scholars at the desks; *a a* are the desk standards. Each scholar's desk is arranged opposite the seat space of the opposite scholar, thus separating them, and preventing playing and whispering.

By this arrangement as many scholars can be seated at single as at double desks, and they will only occupy the same floor room. There is also a gain over single desks as arranged in the common way in schools, by seating forty-eight scholars, with these desks, in the same space as thirty-six are commonly seated. The desks and chairs are arranged diagonally on the floor, so that no one scholar can see the face of another without one of the two being at right or left half face. When the school is called to procession, all can rise at once, and step into files in the aisles, without coming in contact with one another. Scholars are more directly under view of the teacher, and can therefore be kept in better order.

(To be continued.)

Papers on Practical Education.

(Continued from page 67.)

THE METHOD OF QUESTIONS.

A teacher must know how to ask questions. For of all the stimulants to the acquisition of knowledge, of all fertilizers of the brains of childhood, youth or age, and of all the quickeners of thought and invention, those sentences that end with the *point of interrogation* are decidedly the best. Such points are soon felt, and never felt but to profit, when skilfully used. And in all that has been said of methods in teaching the subjects already recommended, it has been one special aim to keep this important usage before the minds of all who interest themselves in schools—whether they are teachers, examiners, visitors and parents, or mere lookers on, desirous of the truest prosperity of our schools. Questions give the whole life and zest to a school exercise, and as a teacher can use them effectually, so will be his power to interest, to arouse, to instruct. But they cannot be used by an idle or a lazy man; nor by one who does not study to the very bottom of every topic he attempts to teach. And by them alone without text book—aided by a blackboard for himself, and a slate and pencil, or pen, ink, and paper for the scholar, almost any subject may be well taught, and be made to glow with interest. I gave an illustration of the proper method of questions, under the head of teaching definitions, and it may be well to speak further here.

That is only one example of the true method to be pursued in teaching by questions, and it will apply to the business of giving instruction on every other subject. It is leading the pupil to invent or find out for himself whatever he is required to recite, and it demands that as soon as a scholar is set to learn a task from the book or commit a lesson, that lesson or task shall be explained to him before he sits down to it; and it also plainly suggests that almost everything is best explained to a child—as indeed it is to everybody—by asking questions which he can easily answer for himself. This was the method of Socrates and of Plato, founded on one of the most profound and fascinating of all philosophical conjectures, that all our knowledge consists but of fragmentary reminiscences of the magnificent intellectual treasures which we possessed in a previous existence; and that it needs but the proper questions, put to us under the proper combination of circumstances, to bring to light all those treasures, buried though they are, under no man knows what depths of rubbish and ruin. Ridicule this doctrine as we may—and if we use it for any other serious purpose than a figure of speech, it is supremely ludicrous—yet still its virtual assumption does indicate the only philosophical method of imparting knowledge to children; and it does indicate, that a thoughtful and a skilful teacher may communicate almost any information he wishes to impart by very simple questions; and the greater part of these questions shall not be in the category of those very silly leading ones, which the pupil may answer, when half asleep, by grunting out “yes,” or “no.” Where the information to