

that is in vogue in all schools, and if not should be, there can be little danger of panic and loss of control, so I think the former way of swinging the door is the best, and the Ontario Educational Department in their book of school requirements state that all doors must swing in this way.

One thing I might have mentioned when discussing the halls is that for very little extra cost every school could be supplied with a dust chute in each corridor, so that all sweepings can be dropped direct to the basement, instead of being carried from floor to floor. I have used them, and they are found to be eminently satisfactory. The opening for these chutes should be close to the floor and be supplied with a door.

If financially possible, I would advocate the installation of vacuum cleaner machines in all schools in preference to the dust chutes. The cost is not great, the labor of sweeping is entirely eliminated, and the efficiency of machine cleaning is one hundred per cent better.

On each floor, placed in a central position in halls, should be a small wash sink room, so that the janitor can draw water and empty his scrubbing pail without having to go to the basement, as is so frequently the case, and by placing in the basement a small jacket heater and boiler there can always be an abundance of hot water.

If at all possible all schools should have provision made for a principal's and teachers' room or rooms.

Also, in each hall should be provided a drinking fountain for the convenience of the pupils, placed in as central a position as possible, some to be of the bubbler pattern.

Every school should be provided with recreation and play rooms, unfortunately the cost invariably prohibits these being above ground, so the basement is utilized for the purpose. These rooms, one for boys and one for girls, should be separated, but should be in close touch with the respective lavatories. They should be well lighted and should be 9 feet or 10 feet high at least.

The lavatories should be fitted up in the most sanitary way possible. There are many very excellent fittings now made for the purpose. The floors should be of some

non-absorbent material. The lavatory should be ventilated in same manner as other portions of the building.

We now arrive at the all important point of school construction, namely, the heating and ventilation which is a many-sided question, as cost of running, installation and efficiency have to be considered, and after all efficiency is the goal to be aimed at.

The mechanical device for obtaining proper ventilation is without doubt the only positive method of securing the desired end, but unfortunately this is usually beyond the funds of the average school committee, so invariably the gravity principal is employed. I have with very good success used a system which reduces the coal consumption to a minimum by having the air used for ventilation purposes brought in direct from outside and pass over the hot interior surfaces of the boiler, thereby utilizing heat that in other systems is thrown away, besides having to generate more power to heat coils which are placed below the vent flues in a chamber constructed for the purpose.

The actual heating or warming of classrooms, etc., is done by placing direct heating radiators in the various rooms. This keeps the temperature up to the desired point, but in addition to this in each room there are two flues, one for supplying warm fresh air, placed about seven feet above the floor, and the other placed near the floor to carry off the foul and vitiated air.

The vent ducts should run up and through the roof, where the air is released.

In most cases new school buildings have flat roofs, and a very sensible roof it is, as many dollars are saved thereby.

It is also now generally conceded that school buildings should not be more than two storeys in height, and this is wise, as after anyone has climbed two flights of stairs, a third becomes a decided effort.

I trust a few readers will be able to gather some benefit from the above, but as the subject is one on which many articles and books have been written, it can be readily understood that to condense the subject and yet keep in sufficient material to make an article of practical value is somewhat a difficult problem, when one considers the varied wants of the numerous localities.