

THE SWIMMING POOL AT GURUTALAWA

Description of the Main Features of the Bath and Filter

The bath is 25 metres long (about 82 feet), and 32 feet wide. In the shallow end its depth is 4 feet 6 inches, and in the deep end it is 8 feet 6 inches. It holds about 120,000 gallons of water. The interior is faced with Snoweem white cement in order to avoid the cost of tiles. We had intended to construct a concrete diving-stage, but again on grounds of economy actually built a wooden structure. Mr E. Scott was responsible for the design and construction of this, and has produced a structure which meets all our needs efficiently, whilst harmonising with the surrounding of the bath. It has solid masonry foundations more than 10 feet deep. It provides a firm board at 5 metres and spring board at 3 and 1 metre. The latter were manufactured by Messrs. Hunt of Liverpool, and embody their "Windsor" adjustable fulcrums. This diving equipment is sufficient for the needs of the school, though for men's diving competitions a depth of 10 feet 6 inches would have been preferable.

The filter plant was supplied by Messrs. The Candy Filter Company Ltd, and embodies their "Surflo" system. In the specification I had asked for reverse circulation, and found this embodied in the system proposed. Whilst I do not believe this type of plant is suitable for all purposes it has many advantages for our bath here.

1) The water in a bath is slowly contaminated by the bathers in any bath. The filtration and sterilisation plants are designed to remedy this. Most of the water contaminated is near the surface, since no bathers are for long near the bottom of the bath. It is a real advantage to draw off this surface water rapidly, and thereby prevent it from mixing with the rest of the water in the bath.

2) Our pool is surrounded by trees. Leaves and sticks often fall into the pool, and in the South west monsoon the amount is very considerable. The surface water is leaving the bath over the sides, carries much of this floating debris out of the bath, where it can be readily collected.

3) The collecting troughs, which replace the normal "scum gutters", do not contain standing water. The water in them runs rapidly back to the balance tank, and does not re-enter the bath. This affords a considerable advantage in a country in which scum gutters have come to be regarded as spittoons, a purpose for which they never intended and for which they should never be used.

4) The employment of reverse flow fits in well with the American Y. M. C. A. idea of having the bath water at "deck level". This is a feature I wanted very much for this bath, although it is not a common arrangement with the surflo or with any other filtration system. By having the water level with the sides of the bath, it is easy for anyone to leave the bath at any point, and ladders are not required. I regard this as an enormous advantage. I have personally seen two or three "near Accidents" through poor swimmers struggling to get to a ladder when out of their depth, and perhaps being pushed away by some unthinking swimmer who had already reached the ladder. The arrangement may have some disadvantages from the point of view of water polo, but for swimming races it has advantages. The ends of the bath have been modified to provide a raised starting platform for swimmers who are racing.

With the filter in normal use the contaminated water leaves the bath over the sides, and runs under gravity into a balance tank. From there it is pumped by a diesel driven pump to the filter, where it is sprayed by multiple jets on to the filtering medium. These sprays aerate the water, and thereby obviate the need of a separate fountain aerator. This arrangement is unconventional, and does not provide the pleasing effect of the fountain, but it is at least equally efficient. The actual filtration is performed by a chemical layer on the top of the filter sand. The water passing through this is rendered clear, but it requires sterilisation before return to the bath. The sterilisation is performed by the addition of a solution of Chloride of Lime. This is fed to the filtered water by a gravity doser. The action of gravity then causes the return of the water to the bath which it enters through a row of nozzles extending down the middle of the floor for its whole length.

The Chloride of Lime can be supplemented or replaced by the use of sodium hypochlorite produced each night, when the College lights are on, by an electrolytic generator manufactured by the Paterson Engineering Co. Ltd, under the trade name of "Chlorocel". This is fed with common salt, which it changes to a solution containing free chlorine.

Other Chemicals needed from time to time for the proper working of the plant are fed direct into the balance tank by suitable gravity feeds. The balance tank also serves to deal with the surge of water which leaves the bath when a number of boys dive in at the same time. It is estimated that the entry of sixty boys would otherwise raise the level of the water by about half an inch. The return of the water to the bath is controlled by a float valve in the filter output, and this keeps the level of the water sensibly uniform.

The filtration plant circulates the water once every eight hours, and is kept running for twelve hours each day. The water is tested at least twice a day for free chlorine content, and pH value.

The bath is cleaned (generally by the boys) using a suction sweeper, which acts rather like a vacuum cleaner. This removes any loose deposits from the bottom.

SWIMMING CLUB

Those who are living in the district are keen on swimming, may like to join the Club which we are starting in connection with the bath, and particulars are obtainable from me, should they be required.

THE OPENING GALA

Many of the Colombo friends of the College have watched the progress of the bath with keen interest, and have expressed their wish to be present at its opening. In view of these requests we have ventured to hold this function this afternoon. It has been a matter of considerable encouragement to receive the support of the Otter Aquatic Club, the Colombo Swimming Club, the Hill School and S. Thomas' College, Mount Lavinia, in making it a success. I wish to thank all of you who have come from so far to help us, and I hope that you as well as the spectators will have a very pleasant visit.

21.02.53

R. L. Hayman
Head Master