

THE DRY PIT LATRINE

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Some 32 years ago an article was published in the British Medical Journal in which the use of a dry closet was advocated, both on hygienic grounds and with a view to restoring to the earth rich fertilizer which would otherwise be wasted.

With this in the back of my mind—for I had lost two collections of Medical books and Journals in the political disturbances of recent time in China—I worked out details for the construction of dry pit latrines as soon as the development of the Hay Ling Chau Leprosarium, (The Isle of Happy Healing) Hong Kong had reached a stage which made such an innovation possible.

Suggestions from friends have been incorporated and no credit is claimed for any originality; the end result is a latrine which has proved simple and effective, free from offensive smells, and from the menace of flies, providing a rich soil, which for greater safety is composted for a further 12 weeks before being returned to the vegetable gardens; as such it may be of interest to those faced with similar problems.

Two pits have been prepared for use by each of the cottages in which 24-28 patients live together; one pit is used first by all the patients; and they have been instructed to add a shovel full of garden soil each time they use it; when filled, which takes about 2 months, the pit is closed and the second pit comes into use. When the second pit is nearly full the contents of the first are dug out and are removed to the compost pits alongside our pig-sties.

By this time the contents are free from all objectionable smells and offensive matter, through decomposition due to bacterial action.

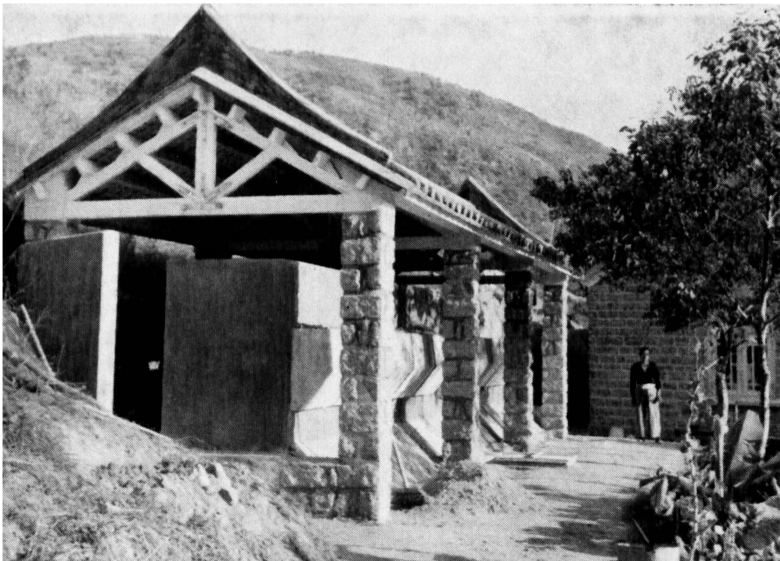
Some details of the construction of the latrines may be of interest. Each pit is approximately 3ft. deep, 10ft. long and 5 ft. wide (about 0.9 m. deep, 3 m. long and 1.5 m. wide).

Access, from one side, is to 3 cubicles 3ft. x 3ft. 3in. (0.9 m. x 1.0 m.) with squatting plates, which rest on a beam running the length of the trench. Hinged lids cover the holes in the plates. Access from the other side, which should if possible be some $1\frac{1}{2}$ ft. (0.45 m) lower, is to the fly-proof covers of the pit which can be lifted, making removal of the contents easy.

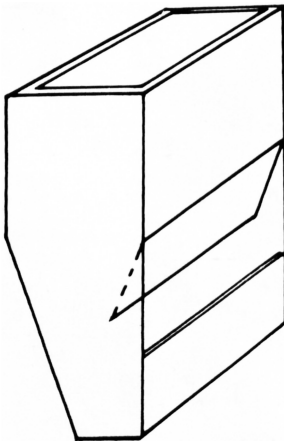
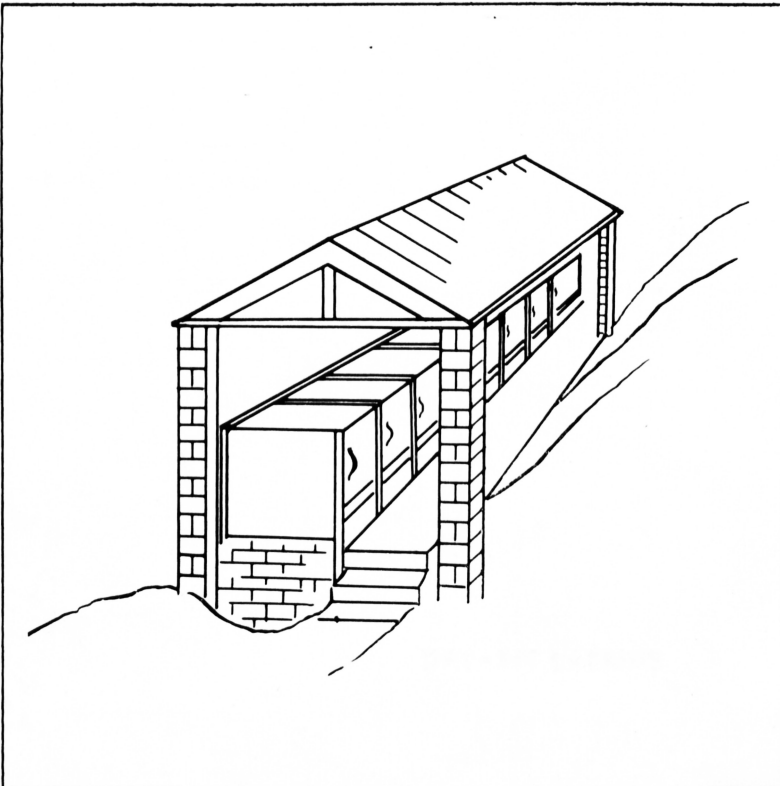
Between the two pits a smaller pit can be used as a urinal; if this is filled with saw-dust an enormous quantity of urine can be absorbed; all offensive smell is removed and the ammonia concentrated; the Chinese vegetable gardeners however are so keen to use the urine, diluted, to water vegetables that buckets are usually found in this section, and such a "compromise" may be allowed.



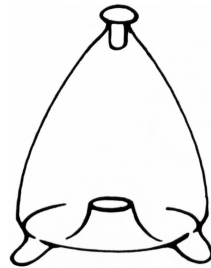
Showing earth-boxes, drainage pit, and covers to pit.



This dry-pit latrine is for 50 patients. The heap of earth is for filling the boxes.



EARTH BOX



GLASS FLY-TRAP

Flies, in spite of care in seeing that lids are closed after use, inevitably gain access to the pits and breed there. Traps however can easily be fitted to the covers, to catch all the flies that emerge, and this is probably simpler and more effective than expensive screening which involves regular maintenance, or automatic mechanical devices to close the lids which inevitably get out of adjustment sooner or later or are deliberately wedged open.

It should be noted that the latrines are built immediately adjacent to the cottages, so that the first to suffer from flies or objectionable smells will be patients living there; should they complain it can easily be demonstrated to them that the cause is their own neglect of the simple rules which they have been instructed to carry out.

Success however depends on the addition of a shovel full of garden soil whenever the latrine is used, and so both soil and shovels should be provided. Boxes have been built into the back of the cubicles which can be filled from the outer sides and from which a shovel full at a time can be removed from the inner side.

The pits should be drained and should be protected from flooding by heavy rain. If on a slope a drain can be led to a sump—the contents of which can be used for watering flowers or vegetables.

If on level ground a deeper pit or well should be dug into which excess liquid can be drained which again can be removed daily for use in the gardens.