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*Proceedings of the Madras Government, Public Works Department,
6th April 1865.*

No. 101. Read the following Proceedings of the Madras Government in the Public
Department:—

Passing orders on a report submitted by the
President Sanitary Commission, of the result
of certain experiments made to test the
value of Xanthorrhoea Australis as a deodor-
ant and disinfectant, and requesting the
Principal Inspector General Medical Depart-
ment to report whether a building more free
from vermin should not be rented for the
Vepery Dispensary. (Here enter 29th March 1865, No. 332.)

No. 102. ORDER THEREON, 6th April 1865, No. 939.
Communicated to the Superintending Engineer, 4th
Division.
CIVIL WORKS, No. 18.
(True Extract.)
(Signed) CHARLES A. ORR, Colonel, R. E.,
Secretary to Government.

To the Superintending Engineer, 4th Division.

Exd. S. T. Augustin.

*Proceedings of the Madras Government, Public Department,
29th March 1865.*

3. On breaking up the stems of the Xanthorrhoea it was found that three out of the four had partially rotted, the best pieces only being fit for use as the rotten parts emitted an unpleasant smell. The rotting arises from its having been necessary to stow away the plants in one of the boats of the P. and O. Steamer, where they were exposed to salt water during deck washing. This will probably render the wash less fragrant than it should be; but there was sufficient sound stuff to make a barrel full, which was prepared in the following manner:—

Wednesday, 15th February.

A layer of lime, one inch deep, was put in the bottom of a quarter cask, then a layer, of about four inches, of broken up stem of Xanthorrhoea, then another layer of lime, and so on, the quantity of material being sufficient to fill half the cask.

Boiling water was then poured on, till the cask was full. This must be allowed to stand four or five days.

4. The plant used above was from Queenscliff, Port Philip Bay, Victoria, and from the causes mentioned was inferior in fragrance to a small supply collected at Mount Maclodon, Victoria, which was brought separately in a box, protected from wet. Some wash was prepared from this in an earthen pot.

5. In anticipation of a visit from some of the Members of the Sanitary Commission on the morning of the 22nd, the floor, and about a yard in height of the walls, of the ward, were washed with the preparation, on the evening of the 21st.

Tuesday, 21st February.

The liquor in the barrel was found to be of a redder colour than was expected, and not so fragrant as that in the earthen pot. The colour when laid on to the walls was a dull yellowish umber. It is evident that more lime should be used than was noted in the recipe given to me in Australia.

6. A small quantity of the wash was weighed with a little more lime, and the floor of a bath room was washed with it. The effect was that an excellent yellow colouring was obtained, whilst the fragrance was in no way impaired.

7. An experiment was now tried with some bugs.

8. Half a dozen were put into a cup, and a few drops of the liquid, sufficient to submerge them, killed them almost immediately. They were then thrown out, and eight or ten more were put into the cup which had contained the liquor, a piece of cloth was tied over the mouth, and they were left for the night.

9. Forty or fifty bugs were put into a larger cup, all were submerged for an instant, the liquid was drained off, the mouth of the cup was tied up, and they were also left for the night.

Wednesday 22nd.

10. The members of the Sanitary Commission were unable to attend. Dr. Donaldson only being present.

11. The room which had been washed the previous evening, although a very airy one, had a strong pleasant scent pervading it, no smell of paint remaining; the scent was perceptible on entering the adjoining ward. The wash had dried to a reddish umber colour; that of the bath-room, where more lime had been used, was a good yellow.

12. The cups containing the bugs were now examined. In the smaller cup they were all quite dead, and in the larger one two only were alive; these had succeeded in crawling up the side of the vessel, and were clinging to the cloth, which was free from wash.

13. Some more bugs were procured, and immersion in the fluid killed them very speedily. Two of the Hospital cots, on which many bugs were visible on lifting the mattress, were then carefully washed over with the liquid, and were put out from the wall; the old mattress was put on one of these, to see whether the bugs would forsake it, and a new mattress on the other, to ascertain whether they would assemble under it.

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29th March 1865.*

Saturday 25th.

14. The Sanitary Commission met at the Dispensary at 7 A. M.

15. The ward which had been washed was very fragrant, and the members turned their attention principally to the possible bug destroying properties of the wash; several experiments were tried. Bugs, which were submerged and kept in the liquid for a time, were destroyed; but many which were merely put in contact with the liquid on a plate, where they could crawl about, seemed only stupefied. An increased quantity of lime added to it appeared to produce a greater effect.

16. The two cots which were washed with the Xanthorrhoea on Wednesday were examined. That which had the old mattress on it contained bugs, but that on which a new one had been put was quite free; no doubt the old mattress was infested. A further experiment was now ordered, viz., two cots to be washed, the one with hot water, and the other with Xanthorrhoea, each to have a new mattress put on it, and a patient to sleep on it for a few days.

17. A small quantity of the liquid was afterwards taken to the office of the Sanitary Commission, in order that its deodorizing properties might be more fully tested.

18. A close ill-ventilated out-house was selected, and the floor and part of the walls were washed. The immediate effect was to banish a disagreeable mildewy odour which pervaded the room, and to substitute a pleasant wholesome scent. The door was left open, and it will be observed whether the scent continues for a length of time.

19. A final visit was paid this morning to the Vepery Dispensary with Dr. Montgomery.

Friday, 3rd March.

20. The scent of the Xanthorrhoea is still very strong in the room which was washed ten days previously, although the doors and windows are open, and the room is an unusually airy one. It retains its pleasant fresh odour, and no smell of paint is perceived.

21. The cots were now examined. The wash had not been successful in altogether banishing bugs, as that which had been subjected to the application contained one or two. The number of bugs in the Vepery Dispensary is, however, so great, that it would have been a very great success, indeed, if the cot had been quite free.

22. A small quantity of the plant, in its natural state, has been given to Dr. Montgomery, for further experiment, if necessary, and there is more than half a barrel full of the wash remaining at the Vepery Dispensary.

23. It may be useful to mention that the resinous gum of the Xanthorrhoea is said to contain cinnamic as well as benzoic acid.

* Amounting to Rupees 7-7-6.

24. I beg to enclose a bill* which I have paid for the purchase of a barrel, lime pots, &c., used in conducting the experiments.

(True Copy).

(Signed) H. B. MONTGOMERY, M. D.,
Secretary, Sanitary Commission.

No. 128. ORDER THEREON, 29th March 1865, No. 332.

The Governor in Council concurs with the Sanitary Commission in considering that the success of the experiment, referred to in the foregoing letter, has not been such as to justify any expense being incurred in supplying Hospitals with Xanthorrhoea Australis. The bill, amounting to Rupees 7-7-6, submitted by Major Michael, is sanctioned.

2. Orders have been issued in the Public Works Department, for the preparation of detailed plans and estimates for the erection of a General Native Hospital, near

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the Penitentiary; but as some time must elapse before such a building can be erected, it seems deserving of consideration whether a building more free from vermin should not be rented for the Vepery Dispensary, as a temporary measure. The Principal Inspector General of the Medical Department will report on this point.
(True Extract).

G. J. Cunningham
Chief Secretary.

- To the President of the Sanitary Commission.
" Officiating Conservator of Forests.
" Civil Paymaster (with a Bill).
" Public Works Department.
" Principal Inspector General, Medical Department.

Exd. J. H. Burns.

Feb Civil Works *9*
no 939
Communicated to
the Supt Engineer 4th Division.
Fort St. George
2nd April 1865
W.B.
To the Supt Engineer
4th Div. *16*
2
2082
2nd 7th April

J. W. 1865 Depd
Pro. of Govt for April
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Pro. of Govt in the
Public Department

Dated 29 March
Recd 30 March/65

William A. - 10382

Passing orders on a
report submitted by the
Presd^t Sanitary Commis-
-sion, of the result of
certain experiments made
to test the value of San-
-thuraea Australis as a
deodorant and disinfectant
and requesting the Asst
Supt^t Genl. Med. Dept^t to
report whether a build-
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rented for the Dispensary

9-29-65 April 1865

No. 101. 102