

*Proceedings of the Madras Government, Revenue Department,
2nd March 1871.*

No. 32. Read the following letter from J. BROUGHTON, Esq., Government
Quinologist, to the Secretary to Government, Revenue Department,
Fort Saint George, dated Ootacamund, 9th January 1871:—

REFERRING to G. Os., No. 2,505 of 4th September 1869, and No. 118 of 22nd
January 1870, in Revenue Department, I beg to communicate some facts concern-
ing an indigenous source of carbolic acid.

2. Early in 1867 Mr. McIvor requested me to examine an essential oil which
he had obtained from a very common hill-plant the *Andromeda leschenaultii*. I did
so, and was enabled to identify the oil as methylsalicylic acid, and almost identical
with the Canadian oil of wintergreen. Oil of wintergreen is an object of some
slight commerce, being used in perfumery, and occasionally in medicine as an
anti-spasmodic. The oil from this Indian source contains less of the peculiar
hydrocarbon oil which forms a natural and considerable admixture with the
Canadian oil, and therefore is somewhat superior in quality to the latter. The
commercial demand for the oil is not, however, considerable enough to make its
occurrence in India of much direct importance.

3. It occurred to me in 1869 that methylsalicylic acid would, however,
under suitable treatment, furnish carbolic acid according to a decomposition
described by Gerhardt. After a few experiments I was successful in preparing
considerable quantities of pure carbolic acid.

4. The method of manufacture is as follows:—

The oil is heated with a dilute solution of a caustic alkali, by which means
it is saponified and dissolved, methyl alcohol of great purity being liberated.
The solution of the oil is then decomposed by any mineral acid, when beautiful
crystals of salicylic acid are formed. These are gathered, squeezed, and dried.
They are then mixed with common quicklime or sand, and distilled in an iron
retort; carbolic acid of great purity and, crystallizing with the greatest readiness,
passes into the receiver.

5. This acid is equal to the purest kind obtained from coal-tar, and employed
in medicine. I exhibited a specimen of it at the Neilgherry Exhibition in 1869.
It, of course, possesses all the qualities which has rendered this substance almost
indispensable in modern medical and surgical practice.

6. I had hoped, from the inexhaustible abundance with which the plant grows
on the Neilgherries, that the carbolic acid from this source could be prepared at
less cost than that imported. I have not yet had an opportunity of working on a
large scale with an itinerant Still as would be necessary for its cheapest produc-
tion; but from some calculations I have lately made, I am led to think it can
scarcely be prepared for less than the price of that procured from coal-tar. The
purest kinds from the latter source costs 4 shillings a lb.; I estimate the cost of that
from this indigenous source at from Rs. 2-8-0 to Rs. 3-8-0 per lb. in this country.

7. The carbolic acid from the above source has certain advantages over the
coal-tar acid consequent on its extreme purity. It is less deliquescent, and cannot
possibly be open to the suspicion of contamination with certain other products of
coal-tar which possess injurious qualities. This occasional suspicion, indeed, has
led to the introduction of the costly thymol in France, as a substitute in delicate
cases for carbolic acid.

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8. In conclusion, I am led to the belief that it would not be advisable to prepare carbolic acid from this singular source, when the comparative cost shows that the gain must be very small or non-existent. But it appears to me well worthy of record that, should circumstances render the supply of the English product difficult or uncertain as in the case of war, or the English price increase, a practically inexhaustible source exists in this country from which this indispensable substance, in its purest state, can be obtained at a slight enhancement of the present price.

No. 33. ORDER THEREON, 2nd March 1871, No. 377..

Miscellaneous.

THE Government are much obliged to Mr. Broughton for his interesting communication which will be brought to

the notice of the Secretary of State, in view to the information being disseminated whenever it is likely to be of value.

2. The Government think it desirable that a specimen of this plant, and its products in the various stages down to the formation of the carbolic acid, should accompany the report, and request that Mr. Broughton will be good enough to supply them with what he may consider sufficient for the purpose.

3. The papers will be also forwarded to the Government of India for

(True Extract.)

(Signed)

W. HUDLESTON,

Secretary to Government.

To the Government Quinologist.

- .. the Commissioner of the Neilgherry Hills.
- .. the Inspector-General, Indian Medical Department.
- .. the Inspector-General, British Medical Service.
- .. the President of the Municipal Commission, Madras.
- .. the Board of Revenue.
- .. J. Thacker, Esq.
- .. the Superintendent of the Government Central Museum.

Ed. F. R. Bantleman.

Revenue Department

W-377

PROCEEDINGS of the MADRAS GOVERNMENT.

2^d March 1871-

Read the following letter

from the
Government Quinologist

*Putting with observations
results of an analysis made
of the oil obtained from the
plant "Andromeda Lechenaultii"*

11.8.9th Jan 7 1871

*The Govt are much
obliged to Mr. Broughton
for his interesting com-
munication which will
be brought to the notice
of the Secretary of State,
in view to the information
being disseminated where
it is likely to be of value*

*2 The Govt think it
desirable that a specimen*

*his should not be
in next Adminis. list
about. N. J. S. S. S. S.*

of this plant & its
products in the various
stages down to the formation
of the ^{urine} acid should accom-
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request that Mr. Broughton
will be good enough to
supply them with what he
may consider sufficient
for the purpose.

3. The papers will be
also forwarded to the
Govt. of India for information

VB

I would also like
me in our Museum
Ed.

- 1 To the Govt. Zoological Museum
 - 2 To the Commissioner of the Madras District
 - 2 To the Inspector General of Prisons
 - 1 To the Inspector General of Prisons
- Copy to all medical authorities
President of the Municipal Council
Mr. Rev. Board
1 Mr. Macleod
2 Govt. General Museum

*Analysis of the
oil from the plant
"Chondrilla Lem-
nautii."*

Cont. of 118 } **Minutes**

Dated _____ }
Recd. _____ } 18 , No.

Nos.

No. 32 & 33

Cont. of 1187

REVENUE

Refund to Capt No 24/11/11

No. 175/11.

Dated _____
Recd. _____

G. O. and Works

REVENUE
Nos. 32

*On 11/11/11
Plants from the plant
subjected to the following
Secretary to State and Co.*