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G.O., No. 1474

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[Despatch Abstract.]

Chemico-legal examinations.

Recording letter from the Chemical Examiner stating that the proposed use of salt solution as a preservative of cattle viscera is undesirable.

11-11-97

BACK PAPERS.

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FURTHER PAPERS.

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Government {1897} of Madras.
PUBLIC.

Recd.

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} 1897.

Enclosures

Spare copies

G.O., No. 1474, 11th November 1897.

NOVEMBER.

Chemico-legal Examinations.

Recording letter from the Chemical Examiner stating that the proposed use of salt solution as a preservative of cattle viscera is undesirable.

GOVERNMENT OF MADRAS.

PUBLIC DEPARTMENT.

READ—again the following papers:—

G.O., No. 685, Public, dated 24th August 1893.

ABSTRACT.—Directing the reprint of G.O., No. 1062, dated 30th May 1883, embodying the rules relating to chemico-legal examinations, as an appendix to these Proceedings and its communication, through the Judicial Department and Surgeon-General, to the officers concerned for very careful attention, and that, in future, individual cases in which the rules have not been observed be at once reported for the orders of Government.

G.O., R. No. 804, Public, dated 23rd July 1897.

Read—the following papers:—

From C. H. A. HILL, Esq., Under Secretary to the Government of India, Home Department (Medical), to the Chief Secretary to the Government of Madras, dated Simla, 14th May 1897, No. 482.

In continuation of the endorsement from this department No. 12 (Judicial)—937, dated the 6th July 1891, I am directed to forward, for the information of the Governor in Council, a copy of a Resolution, No. 472-481, dated 14th May 1897, on the subject of the preservative to be used in packing *viscera* to be sent by post to the Chemical Examiner, together with a revised copy of the rules regarding the transmission of *viscera* by post.

ENCLOSURE.

EXTRACT from the Proceedings of the Government of India, in the Home Department (Medical) under date Simla, 14th May 1897, No. 472-481.

Read again—

Home, Revenue and Agricultural Department Resolution, No. 2 (Judicial)—68—77, dated the 20th January 1880, containing rules in regard to the transmission by post of packages containing human or other *viscera* for chemical examination.

Home, Revenue and Agricultural Department Resolution, No. 14 (Judicial)—1001—1012, dated the 14th September 1880, modifying Rule VII of the rules contained in the above quoted Resolution.

Read also—

Home Department Resolution, No. 12 (Judicial)—927—938, dated the 6th July 1891, inviting the attention of Local Governments and Administrations to the necessity of insisting on strict compliance with the orders in the Resolutions quoted above; and

Letter from the Government of Bengal, No. 532 (Medical), dated the 5th February 1897, forwarding a memorandum on the use of a saturated solution of common salt, as a preservative for *viscera* sent for chemical examination, by Assistant Surgeon Chuni Lal Bose, M.B., F.C.S., Additional Chemical Examiner to the Government of Bengal, and connected correspondence.

Resolution.—In Rule 2 of the rules for preserving and packing human or other *viscera* for transmission by post contained in the Resolution of the 20th January 1880, cited in the preamble, it is directed that the *viscera* if liable to decomposition should be immersed in methylated spirits of wine, which should be used in the proportion of one-third of the bulk of the material.

2. It is pointed out in the memorandum by Assistant Surgeon Chuni Lal Bose, Additional Chemical Examiner to the Government of Bengal, that a saturated solution of common salt possesses advantages over spirits of wine as a preservative, inasmuch as it acts not only as an antiseptic but also as a good deodoriser. Also in cases of suspected alcoholic poisoning methylated spirits cannot be used as a preservative and the use of perchloride of mercury which is in such cases employed as a substitute is open to objection. On the other hand, the solution of common salt delays analysis, and there is a remote possibility of poison, such as arsenic, being added to the preservative salt by a subordinate in collusion with persons interested in procuring a conviction. The Government of Bengal considers that the first objection is not serious and that the second can be overcome by the officer who sends the *viscera* also sending a sample of the salt used.

3. The Government of India accept the view that a saturated solution of common salt should be used instead of spirits in the following cases:—

(1) in all cases of suspected alcoholic poisoning in man, and

(2) in all cases of suspected cattle poisoning,

and they are therefore pleased to direct that rule 2 shall be modified as follows:—

If liable to decomposition it should be treated in the following way:—

(i) In cases of suspected poisoning in man, other than alcoholic poisoning, it should be immersed in spirits of wine, which should be used in the proportion of one-third of the bulk of the material.

N.B.—Care should be taken that common bazaar spirit is not used.

(ii) In cases of suspected alcoholic poisoning in man and in all cases of suspected cattle poisoning it should be immersed in a solution of common salt. The solution should be prepared by adding common salt to water at the ordinary temperature of the air, stirring all the time until no more salt dissolves, and the solution should then be filtered through a plug of cotton wool. The bottle containing the *viscus* or other portion of the body should be filled up with the solution to within one-quarter of an inch of the stopper.

N.B.—To obviate any danger of the solution of salt being tampered with, a separate sample of the solution should in every case be sent to the Chemical Examiner by the officer despatching the *viscus*, and a second sample should be retained in a sealed bottle in his office. The use of the preservatives enjoined in this rule should be invariable, whether the season is hot or cold.

The use of methylated spirit is objectionable, as it may mask the odour of certain toxic agents, and it is more economical to use ordinary spirits of wine, as the medical depôts issue duty free spirits to charges, and which can be purchased cheaper than after it has been methylated.

4. A copy of the rules as revised is annexed. With reference to the extract given in the margin from a letter, dated 21st January 1897, from Surgeon-Lieut. Colonel Warden, Medical Storekeeper to Government, and formerly Chemical Examiner, Bengal, the word "methylated" has been omitted in Rule 2 (1).

Order.—Ordered that a copy of this Resolution, with a revised copy of the rules, be forwarded to Local Governments and Administrations in the Bengal Presidency for information and guidance; and to the Department of Finance and Commerce for information and communication to the Director-General of the Post Office of India.

(True Extract.)

(Signed) J. P. HEWETT,
Secretary to the Government of India.

Rules.

- (1) The suspected *viscus* or other portion of the body to be sent for examination should be enclosed in a glass bottle or jar, fitted with a stopper or sound cork.
- (2) If liable to decomposition it should be treated in the following way:—
 - (i) In cases of suspected poisoning in man, other than alcoholic poisoning, it should be immersed in spirits of wine, which should be used in the proportion of one-third of the bulk of the material.

N.B.—Care should be taken that common bazaar spirit is not used.

- (ii) In cases of suspected alcoholic poisoning in man and in all cases of suspected cattle poisoning it should be immersed in a solution of common salt. The solution should be prepared by adding common salt to water at the ordinary temperature of the air, stirring all the time until no more salt dissolves, and the solution should then be filtered through a plug of cotton wool. The bottle containing the *viscus* or other portion of the body should be filled up with the solution to within one-quarter of an inch of the stopper.

N.B.—To obviate any danger of the solution of salt being tampered with a separate sample of the solution should in every case be sent to the Chemical Examiner by the officer despatching the *viscus*, and a second sample should be retained in a sealed bottle in his office.

The use of the preservatives enjoined in this rule should be invariable, whether the season is hot or cold.

- (3) The stopper or cork should be carefully tied down with bladder or leather and sealed. To ascertain that it has been securely closed, the bottle or jar should be placed for some minutes with its mouth down.
- (4) The glass bottle or jar should then be placed in a strong wooden or tin box, which should be large enough to allow of a layer of raw cotton, at least three-fourths of an inch thick, being put between the bottle or the jar and the box.
- (5) The box itself should be encased in common *gárah* cloth, which should be sealed in accordance with the usual rules of the Post Office as to parcels.
- (6) Despatching officers will be held personally responsible that these instructions are carefully followed. Whenever practicable, such parcels should be packed under the immediate supervision of the District Civil Surgeon.
- (7) At all stations where there is a District Civil Surgeon the parcels should invariably be sent to the Post Office by that officer and not by a subordinate officer; but where there is no Civil Surgeon, they may be sent through the Sub-divisional officer.
- (8) A declaration of contents to the officials of the Postal Department is unnecessary, and should not be made.

Memorandum—No. 1130, Public, dated 27th May 1897.

Referred to the Chemical Examiner for report, to be submitted through the Surgeon-General, who will be requested, in forwarding the same, to express his views thereon.

(Signed) A. R. KNAPP,
for Chief Secretary.

From Surgeon-Major-General C. SIBTHORPE, C.B., F.R.C.P.I., Surgeon-General with the Government of Madras, to the Chief Secretary to Government, dated Ootacamund, 30th June 1897, No. Tour-2—138.

In forwarding the report of the Chemical Examiner on the question raised in the Government of India, Home Department (Medical), letter, No. 482, dated 14th May 1897, received with your No. 1130, dated 27th May 1897, I have the honour to return the original papers, and to state that I fully coincide with the views expressed in the report of the Chemical Examiner.

ENCLOSURES.

From Surgeon-Captain R. ROBERTSON, M.B., C.M., Acting Chemical Examiner, to the Chief Secretary to Government (through the Surgeon-General with the Government of Madras), dated Madras, 24th June 1897, No. 640.

With reference to memorandum No. 1130, Public, dated 27th May 1897, I have the honour to forward the following report left by Surgeon-Major J. L. VanGeyzel who has proceeded on leave.

Report.

Rectified spirit of wine, in lieu of methylated spirit, has long been the preservative employed in this Presidency. It is cheaper than methylated spirit, since it is obtainable duty free from the Medical Stores; and it is far less objectionable from the analysts' point of view. No change in the rules in force in this Presidency is therefore needed with respect to the use of spirit as a preservative.

2. The use of saturated salt solution as a preservative is advocated on the grounds of its being "an antiseptic, and a good deodoriser," in my opinion no great advantages over unmethylated spirit. The objections to the use of salt are stated to be that the presence of common salt "delays analysis and there is a remote possibility of poison such as arsenic being added to the preservative by persons in collusion." The first objection is thought to be not serious, while the second, it is stated, can be overcome by a sample of the salt solution used as a preservative being sent along with the *viscera*.

3. As regards the first objection, it would not be serious in cases where metallic poisons alone are sought for, as I believe is done in the case of cattle *viscera* examined in the other Presidencies; but the presence of large quantities of common salt in *visceral* matters under examination for other than metallic poisons would not only delay analyses but would render them troublesome. The presence of the salt would probably not interfere with the identification of the poison; but personally I would much rather not be handicapped by its presence, when the only advantage claimed for the use of common salt is that it is a "good deodoriser."

4. With regard to the second objection, I respectfully beg to state that I cannot understand how this objection is "overcome" by the officer who sends the *viscera* also sending a sample of the salt. At present a sample of the spirit used for preservation of *viscera* always accompanies the *visceral* matters sent for examination; the object being to ensure that the spirit itself does not contain the poison, if any, be found in the *viscera* to which the spirit was added. But spirit so employed is rectified spirit, supplied from the Medical Stores and safeguarded by the Medical officers and subordinates. The possibility of such spirit being tampered with previous to its addition to *viscera* is remote, and it cannot be said to be "overcome" even in this case. On the other hand salt would be purchased as required from the bazaarman, who keeps it for sale in open boxes alongside of bazaar medicines including arsenic. The possibility of bazaar salt becoming easily tainted accidentally or intentionally is very much greater than in the case of spirit; and this objection is one which in this Presidency at any rate is, I think, important.

5. I hope to test the matter further, when I return from leave; but in the mean time I can only state these objections which suggest themselves to me.

6. I do not, however, think that a case has been made out in favour of using salt solution in preference to rectified spirit, which is cheap and always accessible and much preferable in many ways. Medical officers and subordinates have carried out the rules regarding packing of *viscera*, &c., with care in recent years; and I beg to report that no change is advisable or necessary for this Presidency as regards the preservative to be used for *viscera* sent up for chemical examination in cattle or any other cases. In cases of suspected alcoholic poisoning, of which I believe I have only had two to investigate in the past ten years, they are extremely rare, and no addition of any preservative is advisable.

7. The original papers are returned herewith as requested.

MADRAS, (Signed) J. L. VANGEYZEL, M.B., F.I.C., F.C.S., Surgn.-Major,
23rd June 1897. *Chemical Examiner.*

Order—R. No. 804, Public, dated 23rd July 1897.

A further report from the Chemical Examiner will be awaited.

(True Extract.)

(Signed) J. F. PRICE,
Chief Secretary.

To the Chemical Examiner (through the Surgeon-General).

READ—also the following paper:—

From Surgeon-Major J. L. VANGEYZEL, M.B., F.I.C., F.C.S., Chemical Examiner,
to the Chief Secretary to Government, dated Madras, 12th October 1897,
No. 963.

In continuation of the report forwarded with this office letter No. 640, dated 24th June 1897, read in G.O., R. No. 804, Public, dated 23rd July 1897, I have the honour to report further that I have tried saturated salt solution as a preservative for cattle *viscera*, and that it possesses the advantages claimed for it as “an antiseptic and deodoriser”; but it possesses no superiority in this respect, as far as I could ascertain, over unmethylated spirit. But these advantages were discounted by the high density of the solution, in which the solid *viscera* would not sink. In consequence of this, the portions of *viscera* floating above the solution decomposed rapidly and the attempt to preserve *viscera* in this way failed as completely as it is certain to do in the actual practice of transmitting *viscera* from stations where attention to the details of the method would not be carried out as carefully as they were under the conditions of my experiments. I found it impossible to preserve *viscera* in this way, except by keeping them pressed below the surface of the salt solution by a forked stick fastened to the stopper of the vessel—a method which is objectionable in actual practice, because (1) it would be ineffective under the conditions of transport, and (2) the addition of anything but a preservative agent known to be free from poison is undesirable. One of the alleged disadvantages of the salt solution is that it delays analysis. The delay is not great I find in the case of inorganic poisons; but it is difficult to get rid of traces of the salt when searching for organic poisons.

2. I therefore confirm the advice in my previous report that the proposed use of salt solution as a preservative for cattle *viscera* is undesirable. In the case of suspected alcoholic poisoning, the rule in force may remain that no preservative need be added.

No. 413.

Forwarded.

2. I concur with the Chemical Examiner as to the undesirability of using salt solution for such purposes for the reasons given by him.

MADRAS, (Signed) C. SIBTHORPE, Surgeon-Major-General,
29th October 1897. *Surgeon-General with the Govt. of Madras.*

To the Chief Secretary to Government.

ORDER—No. 1474, Public, dated 11th November 1897.

Recorded.

(True Extract.)

A. T. ARUNDEL,
Chief Secretary.

To the Surgeon-General.
,, Chemical Examiner.

End C. M. Thambuswamy.

The Surge General to the Govt. of Madras
General 2930
Public (1897) Department.

CURRENT No. 4115

188

Read again

G.O. N° 685 Pubd 24.8.97 (C) From

G.O. N° 804 Pubd 23.7.97 (a) The Chemical Examiner
C. 4115 (a) Madras

CS/ Order N° 1474 D 11-11-97.
A Recorded

No. 963

11.8.97

CS/ 5/11/97

Dated 12 October 1897

Note Please enquire after B in G.

Received

RN° 804 Pubd 23.7.97

Registered 1-11-97

Enclosures nil.

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1. The Superintendent 3
2. The Chemical Examiner 3
Depd 1.12.97

SUBJECT.

~~Very short of time for same~~
~~Applied to the for the~~
~~cause~~

Submitting further report
on the proposal to use
the salt solution as the
preservative of cattle viscera
which are sent to the
Chemical Examiner for
analysis.

Refr

Has the reference
with the notes with G.O.
RN° 804 Pubd 23.7.97
This should have been done
before
3/11/97

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G.O.	No.	Department.	Date.
/u	806A	Pub	23-7-97

FURTHER PAPERS.

G.O.	No.	Department.	Date.

C. no. 4113.

Note for Chief Secretary.

The current is a second report from the Chemical examiner to Government, on the ~~improvised~~ rules approved by the Government of India. (at D.)

The previous papers are summarised in the notes at A.

The original rules from the Govt. of India were sent to this Government for information and guidance and it is supposed that Madras is free to follow whatever rules it likes.

The Chemical examiner is not in favour of any change in our rules, and therefore, it is submitted, there is nothing further to be done, and the papers may be recorded without circulation.

8/11/97

10/11/97

8/11/97

3/4 - 2/11/97

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ENCLOSURES TO G. No.

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LETTER OF GOVERNMENT.

STATEMENT WITH DITTO.

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