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[Despatch Abstract.]

SALE OF POISONS.

Communicating to the Hon. the Judges of the High Court, the Board of Revenue, the Local and Municipal Department, and certain bodies and officers, letter from the Government of India regarding the advisability of legislating for the restriction and regulation of the -----in India.

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SEPTEMBER.

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Communicating to the Hon'ble the Judges of the High Court, the Board of Revenue, the Local and Municipal Department and certain bodies and officers letter from the Government of India regarding the advisability of legislating for the restriction and regulation of the — in India.

GOVERNMENT OF MADRAS.

JUDICIAL DEPARTMENT.

Read—the following paper :—

From J. P. HEWETT, Esq., C.I.E., Officiating Secretary to the Government of India (Home Department, Judicial), to the Chief Secretary to the Government of Madras, dated Simla, the 26th August 1895, No. 1255-19, Judl.

I am directed to advert again to the question, which has on several previous occasions engaged the attention of the Government of India, of the advisability of endeavouring by legislation to restrict and regulate the sale and possession of poisons in India.

2. The conclusions which were arrived at on former occasions, and then induced the Government of India to decide against the enactment of a general law, were that the law would be attended with so many difficulties in its working in this country that it would be almost impracticable to enforce it. Among the reasons which led the Government of India to this conclusion were the circumstances that plants of a poisonous nature are the product of every plot of jungle land in the country and can easily be obtained by any one requiring them; and that some of the mineral poisons are largely used for legitimate purposes connected with trade, so that any restriction on their sale and possession could hardly fail to be followed by the greater use by the criminal classes of the (less easily detected) vegetable poisons which would still be accessible to them. The Government of India have, moreover, always apprehended that any restriction on the sale and possession of mineral poisons would afford opportunities to the subordinate officials entrusted with enforcing the law for oppression and corruption which it would be impossible adequately to check. The prevalence of the use of arsenic in its various forms for criminal purposes has brought the question of legislating specially with a view to restricting its sale, independently of other poisons, on several occasions under the consideration of the Governor-General in Council, and I am directed to invite attention to the papers printed with the Selections No. CLXXX from the Records of the Government of India in the Home, Revenue and Agricultural Department, which indicate the difficulties which, in 1881, were held to bar such a project. No law for regulating the possession and sale of poisons has been enacted in India since the issue of the Home Department Resolution No. 9—549-61 and 61-A., dated 25th April 1881, though a Bill much on the lines of that in force in Bombay was proposed by the Government of the North-Western Provinces and Oudh in 1887. The Government of India were not, in view of the conclusions contained in the Resolution of 25th April 1881, and the fact that the Bombay Act had proved to a great extent a dead letter, prepared to sanction a similar measure for the North-Western Provinces and Oudh. Consequently the Bombay Act (VIII of 1866) remains the only enactment on the Indian Statute book dealing with poisons generally, and it is understood that the question of its amendment is now under the consideration of the Government of Bombay.

3. The subject has once more been brought prominently to the notice of the Government of India, and the Governor-General in Council thinks it desirable that it should be again considered by Local Governments and Administrations. As at present advised and subject to the views of Local Governments and Administrations, His Excellency in Council is disposed to think that it might now be advisable to legislate specially in respect of arsenic. This poison is largely used for criminal purposes both in the case of human beings and cattle; and as it is an imported article it might be possible, without interfering with legitimate trade, to bring its distribution, like that of gunpowder, under regulation. The Governor-General in Council would

be glad to be favoured with the opinion of His Excellency the Governor in Council as to whether it would be feasible to legislate generally regarding the sale and possession of this poison. It would be essential to protect its use for trade or manufacturing purposes, and it is not the desire of the Government of India to make the use of it for legitimate purposes more costly than it is, or to procure revenue from fees of any kind.

4. Although the reasons which have actuated the Government of India in the past, and which are referred to in paragraph 2 of this letter, appear to the Governor-General in Council, as at present advised, to be fatal to any scheme for the *general* restriction and regulation of poisons other than arsenic, there do not seem to the Governor-General in Council to be the same objections to providing for a certain amount of control over vendors of poisons within the limits of municipal towns. It might, His Excellency in Council thinks, be possible, without causing hardship, to provide that municipalities should require that all vendors of European medicines or indigenous drugs should take out licenses, and that no poisons should be sold by such licensees except (1) on medical prescription, or (2) to persons whose name, address, &c., should be entered in a register to be kept for the purpose.

Legislation of this nature would not, it is true, go to the root of the evil so long as sale in rural tracts remains unregulated, but there would, in the opinion of the Government of India, be a certain advantage in placing the sale of poisons within Municipal limits under regulation, and I am to say that the Government of India would be glad to have the opinion of His Excellency the Governor in Council on this suggestion.

5. The Governor-General in Council also desires to learn whether any practicable scheme for the licensing of vendors of drugs in rural tracts, under which they could be brought under effective control, seems to the Governor in Council to be feasible.

6. The question of legislating for the restriction of the sale of poisons was, as the Governor in Council is probably aware, discussed at the Medical Congress held in Calcutta last winter, and I am to enclose a copy of such of their papers on the subject as seem likely to be of assistance in a consideration of the question. I am, however, to remark that, in view of the conclusions embodied in the report of the Royal Commission on opium, the suggestions of the Medical Congress in regard to the sale of opium should be left out of consideration when dealing with the question now referred.

Enclosure.

The necessity for an Act restricting the free sale of poisons in Bengal,* by Surgeon-Captain J. F. Evans, M.B., and Assistant Surgeon Chuni Lal Bose, M.B., F.C.S., Chemical Examiners to the Government of Bengal, Calcutta.

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* * * * *

2. Proposition now under discussion.

The measures we propose may be summarised as follows :—

(*a*) An Arsenic Act.

(*b*) The amendment of those sections of the Bengal Municipal Act and Calcutta Municipal Consolidation Act which relate to the sale of drugs.

(*c*) The amendment of those sections of the Opium Act, I of 1875, which relate to the retail sale of opium.

A.—The Arsenic Act.

Import of Arsenic.—As already stated the *arsenic* in India is almost entirely imported into the country.

By the courtesy of Mr. C. A. Samuels, Officiating Collector of Customs, Calcutta, we are enable to furnish the following statement showing the imports and exports of arsenic at the Port of Calcutta during the last twelve years.

* A paper prepared for the Indian Medical Congress, December 1894.

Table V.

Statement showing the quantities of Arsenic imported and exported into and from Calcutta in the Foreign Trade during the official years from 1882–83 *to* 1893–94.

Countries whence imported from and whither exported to.	1882–83.	1883–84.	1884–85.	1885–86.	1886–87.	1887–88.	1888–89.	1889–90.	1890–91.	1891–92.	1892–93.	1893–94.
Imports.	CWT.	CWT.	CWT.	CWT.	CWT.	CWT.	CWT.	CWT	CWT.	CWT.	CWT.	CWT.
From United Kingdom	669	150	546	427	77	314	303	253	402	255	522	330
,, Germany, Hamburg ..	..	..	..	..	..	..	..	..	20	..	11	137
,, China, Hongkong	19	27	..	15	12	7	21	41	88	53	15	113
,, Straits Settlements	39	198	445	19	42	80	102	288	20	192	295	205
,, Australia, Victoria	..	2	..	..	..	..	..	..	..	..	..	..
Total ..	754	377	990	461	131	401	426	582	530	500	843	785
Exports.												
To Ceylon	..	13	13	..	..	..	..	..	..	..	..	6
,, Java	..	..	..	17	..	..	..	..	..	..	..	..
,, Straits Settlements	226	34	70	175	106	161	154	119	..	195	60	127
Total ..	226	47	83	192	106	161	154	119	..	195	60	133

From the statement it will be seen that a very considerable quantity of arsenic remains in the country.

Last year the quantity was 30 tons. The fatal dose of *arsenic* for an adult is two grains. How then, some might ask, is the poisoning by *arsenic* to be prevented, when it is such a deadly drug and when such large quantities are annually imported? But 30 tons is a small quantity compared with the 2,875 tons which constitute the average annual output of *white arsenic* at the tin works of Tavistock in Cornwall; yet fatal *arsenic* poisoning of a criminal kind is not as a consequence frequent in the neighbourhood of Tavistock.

Uses of arsenic for trade manufacturing purposes.—The larger portion of the *arsenic* imported into India is used in trades, such as the cleansing and preparation of hides, paper, paint, wooden posts, &c., and occasionally also for agricultural purposes. The yellow variety of arsenic, which contains from 20 to 30 per cent. of white arsenic, is used as a pigment and largely as a depilatory.

Proposed regulations of the sale of Arsenic.—Without presuming that the proposition is complete and free from defect, or couched in the proper legal phraseology, the regulations of the sale of *arsenic*, which we would propose, take the following shape:

Persons authorized to grant a license.

That certain individuals or officials shall be entrusted by Government with the duty of granting licenses for the import sale, purchase and possession of arsenic after having ascertained to their satisfaction that the applicants for such licenses are fit and proper persons to be granted the same.

General conditions of Sale or Purchase.

That no arsenic or arsenical preparation, recognised as a poison, shall be bought or sold without a license, except on the prescription of a licensed medical man with certain exceptions relating to the practice of indigenous medicines to be hereafter specified.

Conditions regulating the import of Arsenic.

That persons desiring to import arsenic into the country must obtain a license authorizing its import, and must undertake to keep the arsenic in safe custody, and to sell only to persons producing a license authorizing them to purchase arsenic, all such sales being registered with an entry of the date, the quantity sold, and the name and address of the purchaser.

Conditions Regulating the Wholesale or Retail Sale of Arsenic.

That dealers in arsenic, whether wholesale or retail, must obtain a license authorizing them to buy, sell and possess arsenic; that they must undertake to buy from and sell to licensed persons only, and to carry on their business generally under the same conditions as the importers, except in so far as its sale on medical prescription is concerned.

Conditions Regulating the Sale or Purchse of Arsenic for Trade and Manufacturing purposes.

That persons requiring arsenic for manufacturing and other purposes not being those of sale, retail or otherwise, must obtain a license authorizing them to buy and possess arsenic for such purposes, and must be prepared to satisfy the licensing authorities that they are fit and proper persons to be entrusted with the possession of arsenic, and that they are in a position to make suitable provisions for its safe custody, both during use and at other times.

Special provisions for practitioners of Indigenous Medicines.

That in rural districts and where necessary in towns, the practitioners of indigenous medicines, if of good character, may be licensed to buy and possess a limited quantity of arsenic only in each year, and dispense the same to their patients.

Precautions in certain cases.

That pounded white arsenic, except in special cases hereafter to be determined, be sold mixed with soot or indigo in the proportion of one ounce to each pound of arsenic.

B. Amendment of those Sections of the Bengal Municipal Act and Calcutta Municipal Consolidation Act, which relate to the Sale of Drugs.

Poisons within the meaning of the Act.

That the drugs named in the following lists to be known as Schedule A, European Poisons, and Schedule B, Indian Poisons, be considered as poisons for the purposes of the Act.

SCHEDULE *A*.

European poisons.

1. Arsenic and its preparations.
2. Mercury and its preparations.
3. Antimonial preparations.
4. Strong Ammonia.
5. Strong Acids, such as concentrated Nitric, Sulphuric, Hydrochloric and Oxalic.
6. Phosphorus.
7. Hydrocyanic Acid and Cyanides.
8. Opium, its alkaloids and preparations.
9. Belladonna, Datura, Hyoscyamus, their alkaloids and preparations.
10. Nux-Vomica, its alkaloids and preparations.
11. Aconite, its alkaloids and preparations.
12. Hydrate of Chloral.
13. Chloroform.
14. Carbolic Acid.
15. Cantharides and its preparations.

SCHEDULE *B*.

Indian poisons.

1. White Arsenic (Senko, Semulkhar).
2. Red Arsenic or Realgar (Monchhal).
3. Yellow Arsenic or Orpiment (Haritál).
4. Corrosive Sublimate (Ras-karpura).
5. Aconite (Mitakish).
6. Datura.
7. Hyoscyamus (Khorasani Ajwan).
8. Nux-Vomica, bark or seed (Kuchila).
9. Plumbago Rosea (Lalchitra).
10. Croton Seeds (Jaipál).
11. Yellow Oleander (Kolika).
12. Cocculus Indicus (Kakmari).
13. Nerium Odorum (Karubi).

Granting of a License.

That in the same manner as suggested for the sale of arsenic, license be granted for the sale and possession of poisons.

General Conditions of Purchase or Sale of Poisons.

That except under certain conditions, and in certain quantities to be specified in each case, no poison within the meaning of the Act shall be bought or sold without a license, except on the prescription of a licensed medical man.

Conditions of Sale.

That persons engaged in the merchandise of poisons, as defined by the Act, must obtain a license authorizing them to carry on such business, and must undertake to conform with the provisions of the Act, and not to sell poison in any quantity larger than that permitted for its retail sale other than to duly licensed individuals, except on medical prescription.

Registration of the Sale.

That every sale of poison, except on medical prescription with certain exceptions relative to the practice of indigenous medicines, must be duly registered in the following manner :—

(a) Name of purchaser.
(b) Residence of purchaser.
(c) Object of purchase.
(d) Authority for sale.
(e) Quantity sold.
(f) Date of sale.
(g) Signature of the seller.
(h) Signature of the purchaser.

Qualifications of persons permitted to buy and possess Poisons.

That no person shall be permitted to buy and possess poison who is unacquainted with their nature, and is not in a position to make proper arrangements for their safe custody and sale.

Proper Labelling and Custody of Poisons.

That in the shops of individuals licensed to sell poison, the poisons are to be properly labelled with the name of the poison and the printed word POISON, both in English and the vernacular, and kept apart from other articles of merchandise.

Special provisions for practitioners of Indigenous Medicines.

That in rural districts and when necessary in towns, practitioners of indigenous medicines, if of good character, may be licensed to buy and possess and dispense to their patients limited quantities of the poisons included in Schedule B.

Registration of Medical Practitioners.

That all practitioners of medicine licensed to prescribe or dispense poison be registered.

Conditions regarding purchase for Trade and Manufacturing purposes

That the same regulations should apply to persons requiring poisons for manufacturing and other purposes not being those of sale as were recommended in the case of arsenic.

Special provisions for the Sale or Purchase of poisons for Domestic purposes.

That it may be advisable to permit a limited retail sale of certain of the poisons included in the schedules for domestic and other purposes; and that the drugs which may be sold, the quantities to be sold and the manner of the sale be hereafter determined.

Patent and Proprietary medicines.

That all patent and proprietary medicines if found to contain poison within the meaning of the Act, they come within the operation of its provisions.

C.—Amendment of those clauses of the Board's Excise Opium Form No. 1, which relate to the Retail Sale of Opium.

Present limit to retail sale.—At the present time the largest quantity of opium that may be purchased from an opium vendor on one occasion, by any single individual not being a licensed vendor of opium or of an intoxicating drug, is five tolahs or two ounces.*

This quantity is fixed by the Board's Excise Opium Form No. 1 as the extreme limit of retail sale.

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* That he do not, except to a vendor of opium or of an intoxicating drug licensed by the Collector or to a licensed druggist, sell more than five tolahs of opium to any person at one time.

Two ounces of Indian opium is sufficient to poison from 15 to 20 individuals provided that they are not opium-eaters.

Attention has already been drawn to the disastrous results of this system The largeness of the quantity selected as the limit of the retail sale was no doubt due to the wish of the authorities to interfere as little as possible with the requirements of the opium-eater, and with the use of opium as a domestic medicine.

Proposed limit to retail sale.—If the extreme limit of the retail sale of opium were fixed at $\frac{1}{8}$th tolah or about 20 grains, no interference with its use as a domestic medicine would arise, as this quantity represents from 20 to 40 ordinary medicinal doses. Twenty grains is, however, for an adult less than the minimum fatal dose of Indian opium which is much less potent (five times less at least) than Turkish opium.

Such a limit would also satisfy the requirements of a very large number of opium-eaters. The daily dose of opium eaten at the commencement of the habit, is about $\frac{1}{2}$ grain, a quantity which, as is well known, undergoes gradual increase until a very much larger amount, even 100 grains is daily ingested.

But a very considerable proportion of pronounced opium-eaters never exceed 15 to 20 grains per diem, and endeavour to subdue the craving for a larger quantity.

The question now naturally arises as to how and where, if the retail limit be fixed at 20 grains, is the opium-eater, whose daily dose exceeds this quantity, to get his daily supply?

The answer is a simple one. Either the opium-eater must be exposed to a trifling inconvenience in order to get the quantity he requires, or the danger to the general community at present existing must continue.

At the present time opium-eating is not to be regarded as a vice in any sense of the term but only as a habit, the excessive gratification of which engenders very serious dangers to the community at large if it requires that large and fatal doses of opium must be sold without restriction.

It is not too much to require of the opium-eater, whose daily dose has exceeded the retail limit, that he should provide himself with a certificate to that effect signed by a medical man or a respectable individual, such as the headman of his village. We would suggest that such certificates should state the daily dose required, and should be valid for one year only, and that the opium vendor on the presentation of a certificate of this kind should be authorized to sell the quantity intimated therein provided it does not exceed five tolahs.

The proposed amendment of the Board's Excise Opium Form No. 1 is accordingly as follows:—

That he do not, except to a vendor of opium or of an intoxicating drug, licensed by the Collector, or to a licensed druggist, sell more than $\frac{1}{8}$th tolah of opium to any person at one time, except on the production of a certificate stating that the purchaser is an opium-eater, signed by a licensed practitioner of medicine or a respectable resident of the locality, when the quantity specified in the certificate, provided it does not exceed five tolahs in weight, may be sold.

*All sales exceeding $\frac{1}{8}$th tolah to be entered in a special printed record, giving in addition to the information required in paragraph XIV * of Form No. I., the name and residence of the purchaser, the authority for the sale and the quantity sold.*

* That he keep a daily correct account in the following form, to be balanced at the close of each day, this account to be kept in a printed account-book to be purchased at the Collector's office:—

Date.	Quantity of opium remaining in store yesterday.	Quantity received this day.	Total quantity to be accounted for.	Quantity sold this day.	Quantity remaining in store.
	M. S. C.	M. S. C.	M. S. C.	M. S. C.	M. S. C.

Difficulties attending the introduction and working of such a measure.

Numerous objections suggest themselves, therefore it may be as well first to enumerate those which appear most important and then subsequently deal with them in detail.

The following are the objections which will be considered:—

(*a*) That no practical decrease in poisoning will result by imposing restrictions on the sale of certain poisons, while others being indigenous to the country must perforce remain easily accessible.

(*b*) That any change which may arise from the proposed measures will be distinctly a change for worse on the ground that vegetable poisons will, after the enactment of such measures be utilized to a greater extent than at present; and that such poisons are more difficult of detection than the mineral poisons now in use.

(*c*) That the proposed measures would necessitate an undesirable amount of interference with the domestic habits and customs of the people of the country.

(*d*) That they would interfere with the practice of indigenous medicine, and thereby deprive the people in many districts even of the small amount of medical aid which they can obtain at the present time.

(*e*) That measures of the kind proposed would interfere with trade and many useful economic practices.

Is the supposed impracticability of bringing about a decrease in poisoning correct?

Without attempting to raise the question whether the policy of temporizing with an admitted evil is correct we would at once ask: what are the poisons which may be expected to take the place of *Arsenic, Aconite, Opium* and other controllable poisons if these are rendered more or less inaccessible. If any such exist, they must naturally be sought among the indigenous drugs of the country which belong for the most part to the vegetable kingdom.

That the country has many vegetable products endowed with poisonous properties, is easily learned by reference to the Pharmacographia Indica written by Dymock, Hooper and Warden. Fortunately, however, the knowledge of the poisonous properties of the majority of these substances is not yet by any means popular. They may in consequence be considered rather as potential than actual poisons at the present time so far as the people generally are concerned.

As judged from general information, and from all the cases of poisoning which are reported, the number of indigenous vegetable poisons commonly known is very small. The following are the chief:—

Opium.	Nux-Vomica.
Datura.	Oleander.
Aconite.	Abrus Precatorius.

Opium heads the list and is responsible for more fatal cases of poisoning than any other drug; but as already shown, its accessibility can be controlled without imposing hardships on those who require it for a legitimate purpose.

Successful interference with the possessing of *Datura* is apparently hopeless Fortunately the uncertainty of its action is tolerably well recognized. It is in consequence ill-suited to the murderer's purpose as a great risk of detection would be incurred should the poisoned man recover. The murderer does not of necessity desire to leave the locality of the murder; the robber on the other hand administers *Datura* to assist him in the act of theft and to cover his flight with the booty. *Datura Poisoning* is chiefly non-fatal.

Aconite like *Arsenic* is an imported poison, and though its introduction into the country cannot be so easily controlled as that of *Arsenic*, yet as the channels of introduction are well-known, a feasible plan to prevent widespread dissemination of the drug shall be practicable. The physiological symptoms, set up by the chewing of even a small fragment of *Aconite* root, are a bar to its frequent use as a poison, and have frequently assisted in the discovery of the poisoner.

Nux-Vomica trees can hardly be said to grow wild in this part of India in the same way as *Datura*. They are to be found here and there, and have generally been planted for some purpose. Nux-Vomica seeds can, however, be readily purchased in the bazaar. As Nux-Vomica trees are not numerous and do not grow wild, their cultivation, except in certain recognized places and by authorized individuals, should be prohibited.

The cases of poisoning which arise from the use of *Oleander* are for the most part accidental. The plant is to be found in most gardens, and like Datura it is a poison which cannot be removed from the reach of the poisoner. Its poisonous properties do not seem to be very widely known, and its action is somewhat uncertain.

The method of using *Abrus Precatorius* has already been referred to. The fact that it requires to be introduced subcutaneously is an efficient hindrance to its employment other than in a very limited number of cases of cattle poisoning.

These then are the poisons which have been in use for half a century and more. The accessibility of three of them, viz., *Opium, Aconite* and *Nux-Vomica*, can effectually be controlled. *Abrus Precatorius* is seldom used, and then only as a cattle poison. *Datura* and *Oleander* remain, but their use (Oleander for homicide or suicide) is rare now for the reasons already given, and for those reasons is not likely to become more prevalent.

It is of course very difficult, if not almost impossible, to foretell what altered conditions may bring about; but as for many years there has been practically no apparent attempt among poisoners to strike out a new line, it may reasonably be hoped that the introduction of a restricted poison-sale would for several years enforce a sensible diminution in this class of crime.

It is of some interest to note that so long ago as 1843, Dr. Mouat, then Chemical Examiner, considered that the use of vegetable poisons was on the increase and wrote as follows:—

"The great majority of cases of the administration of poison had hitherto been Arsenic. Lately, however, the exhibition of vegetable poisons has been more resorted to from its being known to *hakims* and Native druggists, that while minute traces of any mineral poison can be unerringly detected, most vegetable substances defy analysis in the present state of chemical science. Some check ought to be put to the amount of murder committed in this way, unknown and unrecorded, by legislative enactment, punishing all vendors of drugs in whose possession those substances are found."

Dr. Mouat's apprehensions have, however, proved groundless, for Dr. Warden referring to this statement was able to state in 1886—

"The above was written about 40 years ago; the fear expressed that *vegetable poisons* might supplant *Arsenic* has not been verified. *Arsenic* is still the homicidal and cattle poison of India."

It will naturally be advanced that, from Dr. Mouat's time up to the present, *Arsenic* has remained easily accessible, and the necessity for discovering suitable poisons has not arisen. But even should the properties of indigenous poisons become generally known, these substances could never compete with *Arsenic* in fitness for the poisoner's purpose. A comparison of the properties of *Arsenic* and *vegetable poisons* as a class will at once indicate the advantages which attend the use of *Arsenic*.

Properties of *Arsenic* and *vegetable poisons* generally:—

Arsenic.

1. Tasteless.
2. Certain in action.
3. The fatal dose is a small quantity.
4. Simulates, in a remarkable manner, the symptoms due to the natural disease.

Vegetable Poisons.

1. Acrid, bitter or unpleasant taste.
2. Uncertain in action, due to the varying quantity of the active principles present in different specimens of the same plant.
3. To cause death larger quantities are necessary of the majority of crude vegetable drugs.
4. Do not simulate the symptoms of disease to anything like a corresponding extent.

The certainty of its action, its want of taste, the smallness of its fatal dose (2 to 3 grains) require no further comment. They alone would give to *Arsenic* a place in the front rank of the poisoner's equipment in any country. But the similarity of its symptoms with those induced by disease gives it in India a special value which is well illustrated by the following case:

On 28th October 1894, a man was admitted into the Mayo Hospital, Calcutta, suffering from symptoms of choleraic diarrhœa. He arrived alone and stated that he had come from Moorshedabad by steamer, having purchased and eaten food in the bazaar before leaving. He became ill on board the steamer. After admission his symptoms were attributed, by one of the medical officers, to *arsenical poisoning*, but by three others, who also examined the patient from time to time, he was considered to be suffering from choleraic diarrhœa. The man died on the fourth day after admission, and a *post-mortem* examination was held. The condition found was one of general congestion of the alimentary canal with ulceration of the stomach and ecchymosis over the columnæ carnæ of the heart. Portions of the viscera were sent to the Chemical Examiner for analysis which revealed the presence of *Arsenic*.

It is legitimate to expect that many similar cases, occurring in the district, are returned without challenge as cases of cholera if such a diversity of opinion can arise in a hospital provided with an experienced and expert medical staff.

We have reason to believe, as already stated, that acquaintance with the vegetable poisons of the country and knowledge of their properties are not by any means widely diffused even among the rural population. On the other hand it is of course quite impossible to determine what the practical knowledge of *hakims* and Native druggists may be as regards indigenous vegetable poisons.

In 1843, Dr. Mouat suggested that *hakims* and Native druggists were beginning to put their knowledge to a criminal use. Whether this holds good at the present time, and to what extent, we are quite unable to say.

In towns the practitioners of indigenous medicine are, as a class, a respectable body of men. No doubt here and there black sheep are to be found among the *hakims* who are not over-scrupulous as to the methods in which they earn money.

But should the scheme proposed be put in force, the *hakim* will be dependent for a supply of drugs very important if not essential to him in his practice upon the evidence of good character and conduct which he can adduce. In future the *hakims* would possess a definite status. A recognised position and the discharge of responsible duties are often sufficient to deter criminal instincts from the abetment or commission of crime.

Difficulties attending detection of Vegetable Poisons.

Without implying that the detection of a vegetable poison is as certain as that of a mineral, it may yet be confidently stated, that the chemical methods for detecting vegetable poisons have considerably improved since the time of Dr. Mouat's report already referred to. And though there is still room for further advance in this direction, much has been done, and vegetable poisons can be detected by chemical analysis of viscera with a very considerable degree of certainty as compared with the result of fifty years ago. Should resort to indigenous vegetable poisons be stimulated by restrictive measures, it is probable that chemical research into the nature of these poisons, and the best methods of detecting them would also be stimulated. Much has already been done in this direction by Dymock, Hooper and Warden.

Interference with Customs and Habits.

If the proposed measures be carefully reviewed it will be seen that special cognizance has been taken of customs and habits, and the measures so drafted that no undue interference with habits and customs can arise. In the measures to restrict the general sale of poisons, a special clause is introduced to legalise a small retail sale to unlicensed persons, the provisions of the clause to be hereafter determined.

Interference with the practice of Indigenous Medicine.

The practitioner of indigenous medicine will not be interfered with in his practice, but will be recognized and registered, will, so far as the general community are concerned, become a more important, a more responsible individual than heretofore.

Registration of all practitioners of medicine.—We are aware that the proposal to register the practitioners of the Province has already been once made and that it was abandoned on account of the difficulties of the task. We are now, however, approaching the matter from a different standpoint.

It is utterly impossible to conceive of any scheme for restricting the sale of poisons, unless a register is kept of those persons to be entrusted with certain privileges with regard to poison. A licensed or registered medical practitioner is the only individual in most countries who is allowed to prescribe, sell or possess poisons without challenge, and without having to keep a list of the quantity of poisons prescribed and sold by him in the discharge of his duties. The obligation to register his name and address is a very small matter indeed in return for such important privileges, nor need the act of registration be made unduly vexatious. All medical practitioners in the employment of Government are already registered by the Imperial and Provincial Governments, and there would be no necessity to trouble them in any way.

In Calcutta all practitioners of medicine have to obtain a license from the municipality permitting them to practise, and this would simplify the registration of medical practitioners in Calcutta very greatly.

In small towns and rural districts registration must, of necessity, be a very gradual process. It would follow on the exhaustion of the stock of poison in the possession of the practitioner of indigenous medicine and the necessity of obtaining a license before it could be replenished.

A measure of this kind can only very gradually be brought into force among a population such as that of the province of Bengal.

Numerous difficulties would, no doubt, be encountered in its introduction, and the full measure of benefit to be derived from its operation would only slowly be realized. But, on the other hand, without some such scheme of registration, the restriction of the sale of poisons seems impracticable.

Interference with trade.

This will practically arise only from restricting the free sale of Arsenic. The value of the average annual quantity of Arsenic imported into the country at the Port of Calcutta, during last ten years, has been about £308 sterling, valuing the Arsenic at £14 per ton.

The value of the average annual number of animals, poisoned by Arsenic in the province of Bengal only during the same period, may be calculated as about £180 sterling.

A certain amount of annoyance must, of necessity, be experienced in certain trades and occupations on the introduction of restricted sale. It is possible that certain individuals who are now in the habit of using Arsenic in their trade may be unable to obtain it in the future. Such objections should not, however, be allowed to carry any force. The convenience of the few can

hardly have weight when the interests of a population have to be considered. Those persons who are fit to be trusted with poison will be able to obtain it under conditions of restricted sale as readily as at the present time. They will, however, have opportunities of realising that they are responsible for the safe care of the poison which they are permitted to buy. The value of the Arsenic, imported into the country at the port of Calcutta, does not indicate that any important industry would be injured by the proposed measures.

Concluding Remarks.—We have now reviewed those objections to the introduction of measures restricting the free sale of poisons which appear to us to be the most important. For many years past the introduction of such measures has been frequently recommended. It is trusted that the sketch given in our paper of the present prevalence and nature of poisoning, in the province of Bengal, may serve to demonstrate that the necessity still exists. Without underrating the difficulties attending the introduction and working of such a measure incident to special conditions prevailing in India, we are confident that its introduction would be attended by great reduction in crime.

We do not pretend that the measures proposed by us are free from defect or incapable of improvement. The scheme, such as it is, is submitted for criticism. In conclusion we have to thank Dr. Simpson, Health Officer, Calcutta; Surgeon-Major J. B. Gibbons, Police Surgeon, Calcutta; Dr. Sasi Bhusan Ghosh, Assistant to the Health Officer, Calcutta; Babu Mohiny Mohan Chatterjee, Attorney-at-law of the Calcutta High Court and Babu Surendra Nath Mittra, B.A., Registrar, Bengal Secretariat, for information and assistance in the preparation of the statistics contained in this paper.

Order—No. 2001, Judicial, dated 26th September 1895.

Communicated for favour of remarks to the Hon'ble the Judges of the High Court, the Board of Revenue, the Surgeon-General, the Inspector-General of Police, the Commissioner of Police, Madras, the Chemical Examiner, the Chamber of Commerce, the Madras Trades' Association, the Local and Municipal Department and the following District Magistrates :—

Mr. F. A. Nicholson.	Mr. J. D. Rees.
„ G. Stokes.	„ A. E. C. Stuart.
„ S. H. Wynne.	„ J. N. Atkinson.
„ J. H. Tremenheere.	„ C. J. Weir.

(True Extract.)

J. F. PRICE,
Chief Secretary.

To the above addressees.

Exd. Md. Pahilvan.

Judicial Dept^t

From

The Secretary to the G.G.I.,
Home Dept^t

No. 19 Jud^l / 1255

Dated 26th aug.
Recd 3rd Sept^r } 1895
Reg^d 4th Sept^r }

Enclo: one & 7 N.C. of Enclo. and current.

Subject

Re the question of legislation for the restriction of the sale of poisons.

THE NECESSITY FOR AN ACT RESTRICTING THE FREE SALE OF POISONS IN BENGAL.*

By Surgeon-Captain J. F. Evans, M.B.,
and
Assistant-Surgeon Chuni Lal Bose, M.B., F.C.S.,
Chemical Examiners to the Government of Bengal, Calcutta.

* * * * * * *

2. Proposition now under discussion.

The measures we propose may be summarised as follows:—

a. An Arsenic Act.

b. The amendment of those sections of the Bengal Municipal Act and Calcutta Municipal Consolidation Act, which relate to the sale of drugs.

c. The amendment of those sections of the Opium Act, I of 1875, which relate to the retail sale of Opium.

A.—The Arsenic Act.

Import of Arsenic.—As already stated the *Arsenic* in India is almost entirely imported into the country.

By the courtesy of Mr. C. A. Samuels, Officiating Collector of Customs, Calcutta, we are enabled to furnish the following statement showing the imports and exports of Arsenic at the Port of Calcutta during the last twelve years.

Table V.

Statement shewing the quantities of Arsenic imported and exported into and from Calcutta, in the Foreign Trade, during the official years from 1882-83 to 1893-94.

Countries whence imported from and whither exported to.	1882-83.	1883-84.	1884-85.	1885-86.	1886-87.	1887-88.	1888-89.	1889-90.	1890-91.	1891-92.	1892-93.	1893-94.
	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.
Imports.												
From United Kingdom ...	669	150	546	427	77	314	303	253	402	255	522	330
„ Germany, Hamburg ...	...	...	...	...	...	...	...	...	20	...	11	137
„ China, Hongkong ...	19	27	...	15	12	7	21	41	88	53	15	113
„ Straits Settlements ...	39	198	445	19	42	80	102	288	20	192	295	205
„ Australia, Victoria ...	...	2	...	...	...	...	...	...	...	...	...	...
Total ...	754	377	990	461	131	401	426	582	530	500	843	785
Exports.												
To Ceylon	...	13	13	...	...	...	...	...	...	...	...	6
„ Java	...	...	...	17	...	...	...	...	...	...	...	...
„ Straits Settlements ...	226	34	70	175	106	161	154	119	...	195	60	127
Total ...	226	47	83	192	106	161	154	119	...	195	60	133

From the statement it will be seen that a very considerable quantity of Arsenic remains in the country.

* A paper prepared for the Indian Medical Congress, December 1894.

Last year the quantity was 30 tons. The fatal dose of *Arsenic* for an adult is 2 grains. How then, some might ask, is the poisoning by *Arsenic* to be prevented, when it is such a deadly drug and when such large quantities are annually imported? But 30 tons is a small quantity compared with the 2875 tons which constitute the average annual output of *White Arsenic* at the tin works of Tavistock in Cornwall; yet fatal *Arsenic* poisoning of a criminal kind is not as a consequence frequent in the neighbourhood of Tavistock.

Uses of Arsenic for trade manufacturing purposes.—The larger portion of the *Arsenic* imported into India is used in trades, such as the cleansing and preparation of hides, paper, paint, wooden posts, &c., and occasionally also for agricultural purposes. The yellow variety of Arsenic, which contains from 20 to 30 per cent. of White Arsenic, is used as a pigment and largely as a depilatory.

Proposed regulations of the sale of Arsenic.—Without presuming that the proposition is complete and free from defect, or couched in the proper legal phraseology, the regulations of the sale of *Arsenic*, which we would propose, take the following shape:

Persons authorized to grant a license.

That certain individuals or officials shall be entrusted by Government with the duty of granting licenses for the import sale, purchase and possession of Arsenic after having ascertained to their satisfaction, that the applicants for such licenses are fit and proper persons to be granted the same.

General conditions of Sale or Purchase.

That no Arsenic or arsenical preparation, recognized as a poison, shall be bought or sold without a license, except on the prescription of a licensed medical man with certain exceptions relating to the practice of indigenous medicines to be hereafter specified.

Conditions regulating the import of Arsenic.

That persons desiring to import Arsenic into the country must obtain a license authorizing its import, and must undertake to keep the Arsenic in safe custody, and to sell only to persons producing a license authorizing them to purchase Arsenic, all such sales being registered with an entry of the date, the quantity sold, and the name and address of the purchaser.

Conditions regulating the Wholesale or Retail Sale of Arsenic.

That dealers in Arsenic, whether wholesale or retail, must obtain a license authorising them to buy, sell and possess Arsenic; that they must undertake to buy from and sell to licensed persons only, and to carry on their business generally under the same conditions as the importers, except in so far as its sale on medical prescription is concerned.

Conditions regulating the Sale or Purchase of Arsenic for Trade and Manufacturing purposes.

That persons requiring Arsenic for manufacturing and other purposes not being those of sale, retail or otherwise, must obtain a license authorising them to buy and possess Arsenic for such purposes, and must be prepared to satisfy the licensing authorities that they are fit and proper persons to be entrusted with the possession of Arsenic, and that they are in a position to make suitable provisions for its safe custody, both during use and at other times.

Special provisions for practitioners of Indigenous Medicines.

That in rural districts and where necessary in towns, the practitioners of indigenous medicines, if of good character, may be licensed to buy and possess a limited quantity of Arsenic only in each year, and dispense the same to their patients.

Precautions in certain cases.

That pounded White Arsenic, except in special cases hereafter to be determined, be sold mixed with soot or indigo in the proportion of one ounce to each pound of Arsenic.

B. Amendment of those Sections of the Bengal Municipal Act and Calcutta Municipal Consolidation Act, which relate to the Sale of Drugs.

Poisons within the meaning of the Act.

That the drugs named in the following lists to be known as Schedule A European Poisons and Schedule B Indian Poisons, be considered as poisons for the purposes of the Act:

SCHEDULE *A.*

European poisons.

1. Arsenic and its preparations.
2. Mercury and its preparations.
3. Antimonial preparations.
4. Strong Ammonia.
5. Strong Acids, such as concentrated Nitric, Sulphuric, Hydrochloric and Oxalic.
6. Phosphorus.
7. Hydrocyanic Acid and Cyanides.
8. Opium, its alkaloids and preparations.
9. Belladonna, Datura, Hyoscyamus, their alkaloids and preparations.
10. Nux-Vomica, its alkaloids and preparations.
11. Aconite, its alkaloids and preparations.
12. Hydrate of Chloral.
13. Chloroform.
14. Carbolic Acid.
15. Cantharides and its preparations.

SCHEDULE *B.*

Indian poisons.

1. White Arsenic (Senko, Semulkhar).
2. Red Arsenic or Realgar (Monchhal).
3. Yellow Arsenic or Orpiment (Haritál).
4. Corrosive Sublimate (Ras-karpura).
5. Aconite (Mitabish).
6. Datura.
7. Hyoscyamus (Khorasani Ajwan).
8. Nux-Vomica, bark or seed (Kuchila).
9. Plumbago Rosea (Lalchitra).

10. Croton Seeds (Jaipál).
11. Yellow Oleander (Kolika).
12. Cocculus Indicus (Kakmari).
13. Nerium Odorum (Karubi).

Granting of a License.

That in the same manner as suggested for the sale of Arsenic, license be granted for the sale and possession of poisons.

General Conditions of Purchase or Sale of Poisons.

That except under certain conditions, and in certain quantities to be specified in each case, no poison within the meaning of the Act shall be bought or sold without a license, except on the prescription of a licensed medical man.

Conditions of Sale.

That persons engaged in the merchandise of poisons, as defined by the Act, must obtain a license authorising them to carry on such business, and must undertake to conform with the provisions of the Act and not to sell poison in any quantity larger than that permitted for its retail sale other than to duly licensed individuals, except on medical prescription.

Registration of the Sale.

That every sale of poison, except on medical prescription with certain exceptions relative to the practice of indigenous medicines, must be duly registered in the following manner:

(*a*) *Name of purchaser.*
(*b*) *Residence of purchaser.*
(*c*) *Object of purchase.*
(*d*) *Authority for sale.*
(*e*) *Quantity sold.*
(*f*) *Date of sale.*
(*g*) *Signature of the seller.*
(*h*) *Signature of the purchaser.*

Qualifications of persons permitted to buy and possess Poisons.

That no person shall be permitted to buy and possess poison who is unacquainted with their nature, and is not in a position to make proper arrangements for their safe custody and sale.

Proper Labelling and Custody of Poisons.

That in the shops of individuals licensed to sell poison, the poisons are to be properly labelled with the name of the poison and the printed word POISON, both in English and the vernacular, and kept apart from other articles of merchandise.

Special provisions for practitioners of Indigenous Medicines.

That in rural districts and when necessary in towns, practitioners of indigenous medicines, if of good character, may be licensed to buy and possess and dispense to their patients limited quantities of the poisons included in Schedule B.

Registration of Medical Practitioners.

That all practitioners of medicine licensed to prescribe or dispense poison be registered.

Conditions regarding purchase for Trade and Manufacturing purposes.

That the same regulations should apply to persons requiring poisons for manufacturing and other purposes not being those of sale as were recommended in the case of Arsenic.

Special provisions for the Sale or Purchase of poisons for Domestic purposes.

That it may be advisable to permit a limited retail sale of certain of the poisons included in the schedules for domestic and other purposes; and that the drugs which may be sold, the quantities to be sold and the manner of the sale be hereafter determined.

Patent and Proprietary medicines.

That all patent and proprietary medicines if found to contain poison within the meaning of the Act, they come within the operation of its provisions.

C.—Amendment of those Clauses of the Board's Excise Opium Form No. 1, which relate to the Retail Sale of Opium.

Present limit to retail sale.—At the present time the largest quantity of Opium that may be purchased from an Opium vendor on one occasion, by any single individual not being a licensed vendor of Opium or of an intoxicating drug, is five tolahs or two ounces.*

This quantity is fixed by the Board's Excise Opium Form No. 1 as the extreme limit of retail sale.

Two ounces of Indian Opium is sufficient to poison from 15 to 20 individuals provided that they are not opium-eaters.

Attention has already been drawn to the disastrous results of this system. The largeness of the quantity selected as the limit of the retail sale was no doubt due to the wish of the authorities to interfere as little as possible with the requirements of the opium-eater, and with the use of Opium as a domestic medicine.

Proposed limit to retail sale.—If the extreme limit of the retail sale of Opium were fixed at $\frac{1}{5}$th tolah or about 20 grains, no interference with its use as a domestic medicine would arise, as this quantity represents from 20 to 40 ordinary medicinal doses. Twenty grains is, however, for an adult less than the minimum fatal dose of Indian Opium which is much less potent (five times less at least) than Turkish Opium.

Such a limit would also satisfy the requirements of a very large number of opium-eaters. The daily dose of Opium eaten at the commencement of the habit, is about $\frac{1}{2}$ grain, a quantity which, as is well known, undergoes gradual increase until a very much larger amount, even 100 grains is daily ingested.

But a very considerable proportion of pronounced opium-eaters never exceed 15 to 20 grains per diem, and endeavour to subdue the craving for a larger quantity.

The question now naturally arises as to how and where, if the retail limit be fixed at 20 grains, is the opium-eater, whose daily dose exceeds this quantity, to get his daily supply?

The answer is a simple one. Either the opium-eater must be exposed to a trifling inconvenience in order to get the quantity he requires, or the danger to the general community at present existing must continue.

At the present time opium-eating is not to be regarded as a vice in any sense of the term but only as a habit, the excessive gratification of which

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* That he do not, except to a vendor of Opium or of an intoxicating drug licensed by the Collector or to a licensed druggist, sell more than five tolahs of Opium to any person at one time.

engenders very serious dangers to the community at large if it requires that large and fatal doses of Opium must be sold without restriction.

It is not too much to require of the opium-eater, whose daily dose has exceeded the retail limit, that he should provide himself with a certificate to that effect signed by a medical man or a respectable individual, such as the headman of his village. We would suggest that such certificates should state the daily dose required, and should be valid for one year only, and that the opium vendor on the presentation of a certificate of this kind should be authorised to sell the quantity intimated therein provided it does not exceed five tolahs.

The proposed amendment of the Board's Excise Opium Form No. 1 is accordingly as follows :

That he do not, except to a vendor of Opium or of an intoxicating drug, licensed by the Collector, or to a licensed druggist, sell more than $\frac{1}{8}$th tolah of Opium to any person at one time, except on the production of a certificate stating that the purchaser is an opium-eater, signed by a licensed practitioner of medicine or a respectable resident of the locality, when the quantity specified in the certificate, provided it does not exceed five tolahs in weight, may be sold.

All sales exceeding $\frac{1}{8}$th tolah to be entered in a special printed record, giving in addition to the information required in paragraph XIV of Form No. I., the name and residence of the purchaser, the authority for the sale and the quantity sold.*

* That he keep a daily correct account in the following form, to be balanced at the close of each day, this account to be kept in a printed account-book to be purchased at the Collector's Office :—

Date.	Quantity of Opium remaining in store yesterday.	Quantity received this day.	Total quantity to be accounted for.	Quantity sold this day.	Quantity remaining in store.
	M. S. C.	M. S. C.	M. S. C.	M. S. C.	M. S. C.

Difficulties attending the introduction and working of such a measure.

Numerous objections suggest themselves, therefore it may be as well first to enumerate those which appear most important and then subsequently deal with them in detail.

The following are the objections which will be considered :—

(*a*) That no practical decrease in poisoning will result by imposing restrictions on the sale of certain poisons, while others being indigenous to the country must perforce remain easily accessible.

(*b*) That any change which may arise from the proposed measures will be distinctly a change for worse on the ground that vegetable poisons will, after the enactment of such measures be utilized to a greater extent than at present ; and that such poisons are more difficult of detection than the mineral poisons now in use.

(*c*) That the proposed measures would necessitate an undesirable amount of interference with the domestic habits and customs of the people of the country.

(*d*) That they would interfere with the practice of indigenous medicine, and thereby deprive the people in many districts even of the small amount of medical aid which they can obtain at the present time.

(*e*) That measures of the kind proposed would interfere with trade and many useful economic practices.

Is the supposed impracticability of bringing about a decrease in poisoning correct ?

Without attempting to raise the question whether the policy of temporizing with an admitted evil is correct we would at once ask : what are the poisons which may be expected to take the place of *Arsenic*, *Aconite*, *Opium* and other controllable poisons if these are rendered more or less inaccessible. If any such exist, they must naturally be sought among the indigenous drugs of the country which belong for the most part to the vegetable kingdom.

That the country has many vegetable products endowed with poisonous properties, is easily learned by reference to the Pharmacographia Indica written by Dymock, Hooper and Warden. Fortunately, however, the knowledge of the poisonous properties of the majority of these substances is not yet by any means popular. They may in consequence be considered rather as potential than actual poisons at the present time so far as the people generally are concerned.

As judged from general information, and from all the cases of poisoning which are reported, the number of indigenous vegetable poisons commonly known is very small. The following are the chief :—

Opium.	Nux-Vomica.
Datura.	Oleander.
Aconite.	Abrus Precatorius.

Opium heads the list and is responsible for more fatal cases of poisoning than any other drug ; but as already shown, its accessibility can be controlled without imposing hardships on those who require it for a legitimate purpose.

Successful interference with the possessing of *Datura* is apparently hopeless. Fortunately the uncertainty of its action is tolerably well recognized. It is in consequence ill-suited to the murderer's purpose as a great risk of detection would be incurred should the poisoned man recover. The murderer does not of necessity desire to leave the locality of the murder ; the robber on the other hand administers *Datura* to assist him in the act of theft and to cover his flight with the booty. *Datura Poisoning* is chiefly non-fatal.

Aconite like *Arsenic* is an imported poison, and though its introduction into the country cannot be so easily controlled as that of *Arsenic*, yet as the channels of introduction are well-known, a feasible plan to prevent widespread dissemination of the drug shall be practicable. The physiological symptoms, set up by the chewing of even a small fragment of *Aconite* root, are a bar to its frequent use as a poison, and have frequently assisted in the discovery of the poisoner.

Nux-Vomica trees can hardly be said to grow wild in this part of India in the same way as *Datura*. They are to be found here and there, and have generally been planted for some purpose. Nux-Vomica seeds can, however, be readily purchased in the bazar. As Nux-Vomica trees are not numerous and do not grow wild, their cultivation, except in certain recognized places and by authorized individuals, should be prohibited.

The cases of poisoning which arise from the use of *Oleander* are for the most part accidental. The plant is to be found in most gardens, and like Datura it is a poison which cannot be removed from the reach of the poisoner. Its poisonous properties do not seem to be very widely known, and its action is somewhat uncertain.

The method of using *Abrus Precatorius* has already been referred to. The fact that it requires to be introduced subcutaneously is an efficient hindrance to its employment other than in a very limited number of cases of cattle poisoning.

These then are the poisons which have been in use for half a century and more. The accessibility of three of them, *viz.*, *Opium*, *Aconite* and *Nux-Vomica*, can effectually be controlled. *Abrus Precatorus* is seldom used, and then only as a cattle poison. *Datura* and *Oleander* remain, but their use (Oleander for

homicide or suicide) is rare now for the reasons already given, and for those reasons is not likely to become more prevalent.

It is of course very difficult, if not almost impossible, to foretell what altered conditions may bring about ; but as for many years there has been practically no apparent attempt among poisoners to strike out a new line, it may reasonably be hoped that the introduction of a restricted poison-sale would for several years enforce a sensible diminution in this class of crime.

It is of some interest to note that so long ago as 1843, Dr. Mouat, then Chemical Examiner, considered that the use of vegetable poisons was on the increase and wrote as follows :—

" The great majority of cases of the administration of poison had hitherto been Arsenic. Lately, however, the exhibition of vegetable poisons has been more resorted to from its being known to *hakims* and Native druggists, that while minute traces of any mineral poison can be unerringly detected, most vegetable substances defy analysis in the present state of chemical science. Some check ought to be put to the amount of murder committed in this way, unknown and unrecorded, by legislative enactment, punishing all vendors of drugs in whose possession those substances are found."

Dr. Mouat's apprehensions have, however, proved groundless, for Dr. Warden referring to this statement was able to state in 1886—

" The above was written about 40 years ago ; the fear expressed that *vegetable poisons* might supplant *Arsenic* has not been verified. *Arsenic* is still the homicidal and cattle poison of India. "

It will naturally be advanced that, from Dr. Mouat's time up to the present, *Arsenic* has remained easily accessible, and the necessity for discovering suitable poisons has not arisen. But even should the properties of indigenous poisons become generally known, these substances could never compete with *Arsenic* in fitness for the poisoner's purpose. A comparison of the properties of *Arsenic* and *vegetable poisons* as a class will at once indicate the advantages which attend the use of *Arsenic*.

Properties of *Arsenic* and *vegetable poisons* generally :—

ARSENIC.

1. Tasteless.

2. Certain in action.

3. The fatal dose is a small quantity.

4. Simulates, in a remarkable manner, the symptoms due to the natural disease.

VEGETABLE POISONS.

1. Acrid, bitter or unpleasant taste.

2. Uncertain in action, due to the varying quantity of the active principles present in different specimens of the same plant.

3. To cause death larger quantities are necessary of the majority of crude vegetable drugs.

4. Do not simulate the symptoms of disease to anything like a corresponding extent.

The certainty of its action, its want of taste, the smallness of its fatal dose (2 to 3 grains) require no further comment. They alone would give to *Arsenic* a place in the front rank of the poisoner's equipment in any country. But the similarity of its symptoms with those induced by disease gives it in India a special value which is well illustrated by the following case :

On 28th October 1894, a man was admitted into the Mayo Hospital, Calcutta, suffering from symptoms of choleraic diarrhœa. He arrived alone and stated that he had come from Moorshedabad by steamer, having purchased and eaten food

in the bazar before leaving. He became ill on board the steamer. After admission his symptoms were attributed, by one of the medical officers, to *arsenical poisoning*, but by three others, who also examined the patient from time to time, he was considered to be suffering from choleraic diarrhœa. The man died on the fourth day after admission, and a *post-mortem* examination was held. The condition found was one of general congestion of the alimentary canal with ulceration of the stomach and ecchymosis over the columnæ carnæ of the heart. Portions of the viscera were sent to the Cheminal Examiner for analysis which revealed the presence of *Arsenic*.

It is legitimate to expect that many similar cases, occurring in the district, are returned without challenge as cases of cholera if such a diversity of opinion can arise in a hospital provided with an experienced and expert medical staff.

We have reason to believe, as already stated, that acquaintance with the vegetable poisons of the country and knowledge of their properties are not by any means widely diffused even among the rural population. On the other hand it is of course quite impossible to determine what the practical knowledge of *hakims* and Native druggists may be as regards indigenous vegetable poisons.

In 1843, Dr. Mouat suggested that *hakims* and Native druggists were beginning to put their knowledge to a criminal use. Whether this holds good at the present time, and to what extent, we are quite unable to say.

In towns the practitioners of indigenous medicine are, as a class, a respectable body of men. No doubt here and there black sheep are to be found among the *hakims* who are not over-scrupulous as to the methods in which they earn money.

But should the scheme proposed be put in force, the *hakim* will be dependent for a supply of drugs very important if not essential to him in his practice upon the evidence of good character and conduct which he can adduce. In future the *hakims* would possess a definite status. A recognised position and the discharge of responsible duties are often sufficient to deter criminal instincts from the abetment or commission of crime.

DIFFICULTIES ATTENDING DETECTION OF VEGETABLE POISONS.

Without implying that the detection of a vegetable poison is as certain as that of a mineral, it may yet be confidently stated, that the chemical methods for detecting vegetable poisons have considerably improved since the time of Dr. Mouat's report already referred to. And though there is still room for further advance in this direction, much has been done, and vegetable poisons can be detected by chemical analysis of viscera with a very considerable degree of certainty as compared with the result of fifty years ago. Should resort to indigenous vegetable poisons be stimulated by restrictive measures, it is probable that chemical research into the nature of these poisons, and the best methods of detecting them would also be stimulated. Much has already been done in this direction by Dymock, Hooper and Warden.

INTERFERENCE WITH CUSTOMS AND HABITS.

If the proposed measures be carefully reviewed it will be seen that special cognizance has been taken of customs and habits, and the measures so drafted that no undue interference with habits and customs can arise. In the measures to restrict the general sale of poisons, a special clause is introduced to legalise a small retail sale to unlicensed persons, the provisions of the clause to be hereafter determined.

INTERFERENCE WITH THE PRACTICE OF INDIGENOUS MEDICINE.

The practitioner of indigenous medicine will not be interfered with in his practice, but will be recognized and registered, will, so far as the general community are concerned, become a more important, a more responsible individual than heretofore.

Registration of all practitioners of medicine.—We are aware that the proposal to register the practitioners of the Province has already been once made and that it was abandoned on account of the difficulties of the task. We are now, however, approaching the matter from a different standpoint.

It is utterly impossible to conceive of any scheme for restricting the sale of poisons, unless a register is kept of those persons to be entrusted with certain privileges with regard to poison. A licensed or registered medical practitioner is the only individual in most countries who is allowed to prescribe, sell or possess poisons without challenge, and without having to keep a list of the quantity of poisons prescribed and sold by him in the discharge of his duties. The obligation to register his name and address is a very small matter indeed in return for such important privileges, nor need the act of registration be made unduly vexatious. All medical practitioners in the employment of Government are already registered by the Imperial and Provincial Governments, and there would be no necessity to trouble them in any way.

In Calcutta all practitioners of medicine have to obtain a license from the Municipality permitting them to practise, and this would simplify the registration of medical practitioners in Calcutta very greatly.

In small towns and rural districts registration must, of necessity, be a very gradual process. It would follow on the exhaustion of the stock of poison in the possession of the practitioner of indigenous medicine and the necessity of obtaining a license before it could be replenished.

A measure of this kind can only very gradually be brought into force among a population such as that of the province of Bengal.

Numerous difficulties would, no doubt, be encountered in its introduction, and the full measure of benefit to be derived from its operation would only slowly be realized. But on the other hand, without some such scheme of registration, the restriction of the sale of poisons seems impracticable.

Interference with trade.

This will practically arise only from restricting the free sale of Arsenic. The value of the average annual quantity of Arsenic imported into the country at the Port of Calcutta, during last ten years, has been about £308 sterling, valuing the Arsenic at £14 per ton.

The value of the average annual number of animals, poisoned by Arsenic in the province of Bengal only during the same period, may be calculated as about £180 sterling.

A certain amount of annoyance must, of necessity, be experienced in certain trades and occupations on the introduction of restricted sale. It is possible that certain individuals who are now in the habit of using Arsenic in their trade may be unable to obtain it in the future. Such objections should not, however, be allowed to carry any force. The convenience of the few can hardly have weight when the interests of a population have to be considered. Those persons who are fit to be trusted with poison will be able to obtain it under conditions of restricted sale as readily as at the present time. They will, however, have opportunities of realising that they are responsible for the safe care of the poison which they are permitted to buy. The value of the Arsenic, imported into the country at the port of Calcutta, does not indicate that any important industry would be injured by the proposed measures.

Concluding Remarks.—We have now reviewed those objections to the introduction of measures restricting the free sale of poisons which appear to us to be the most important. For many years past the introduction of such measures has been frequently recommended. It is trusted that the sketch given in our paper of the present prevalence and nature of poisoning, in the province of Bengal, may serve to demonstrate that the necessity still exists. Without underrating the difficulties attending the introduction and working of such a measure incident to special conditions prevailing in India, we are confident that its introduction would be attended by great reduction in crime.

We do not pretend that the measures proposed by us are free from defect or incapable of improvement. The scheme, such as it is, is submitted for criticism. In conclusion we have to thank Dr. Simpson, Health Officer, Calcutta ; Surgeon-Major J. B. Gibbons, Police Surgeon, Calcutta ; Dr. Sasi Bhusan Ghosh, Assistant to the Health Officer, Calcutta ; Babu Mohiny Mohan Chatterjee, Attorney-at-law of the Calcutta High Court and Babu Surendra Nath Mittra, B.A., Registrar, Bengal Secretariat, for information and assistance in the preparation of the statistics contained in this paper.

C. C. Press, Simla.—No. 865 H. D.—26-8-95.—300.

No. 19 Judl 1253

CHIEF SECRETARY'S -3 SEP 1895 GOVERNMENT OF MADRAS

FROM

J. P. HEWETT, Esq., C.I.E.,
Offg. Secretary to the Government of India,

TO

The Chief Secretary to the Govt. of Madras.

Home Department.
Judicial.

Simla, the 26 August 1895.

SIR,

I AM directed to advert again to the question, which has on several previous occasions engaged the attention of the Government of India, of the advisability of endeavouring by legislation to restrict and regulate the sale and possession of poisons in India.

2. The conclusions which were arrived at on former occasions, and then induced the Government of India to decide against the enactment of a general law, were that the law would be attended with so many difficulties in its working in this country that it would be almost impracticable to enforce it. Among the reasons which led the Government of India to this conclusion were the circumstances that plants of a poisonous nature are the product of every plot of jungle land in the country and can easily be obtained by any one requiring them ; and that some of the mineral poisons are largely used for legitimate purposes connected with trade, so that any restriction on their sale and possession could hardly fail to be followed by the greater use by the criminal classes of the (less easily detected) vegetable poisons which would still be accessible to them. The Government of India have moreover always apprehended that any restriction on the sale and possession of mineral poisons would afford opportunities to the subordinate officials entrusted with enforcing the law for oppression and corruption which it would be impossible adequately to check. The prevalence of the use of arsenic in its various forms for criminal purposes has brought the question of legislating specially with a view to restricting its sale, independently of other poisons, on several occasions under the consideration of the Governor General in Council, and I am directed to invite attention to the papers printed with the Selections No. CLXXX from the Records of the Government of India in the Home, Revenue and Agricultural Department, which indicate the difficulties which, in 1881, were held to bar such a project. No law for regulating the possession and sale of poisons has been enacted in India since the issue of the Home Department Resolution No. 9—549-61 and 61-A., dated 25th April 1881, though a Bill much on the lines of that in force in Bombay was proposed by the Government of the North-Western Provinces and Oudh in 1887. The Government of India were not, in view of the conclusions contained in the Resolution of 25th April 1881, and the fact that the Bombay Act had proved to a great extent a dead letter, prepared to sanction a similar measure for the North-Western Provinces and Oudh. Consequently the Bombay Act (VIII of 1866) remains the only enactment on the Indian Statute book dealing with poisons generally, and it is understood that the question of its amendment is now under the consideration of the Government of Bombay.

3. The subject has once more been brought prominently to the notice of the Government of India, and the Governor General in Council thinks it desirable

that it should be again considered by Local Governments and Administrations. As at present advised, and subject to the views of Local Governments and Administrations, His Excellency in Council is disposed to think that it might now be advisable to legislate specially in respect of arsenic. This poison is largely used for criminal purposes both in the case of human beings and cattle; and as it is an imported article it might be possible, without interfering with legitimate trade, to bring its distribution, like that of gunpowder, under regulation. The Governor General in Council would be glad to be favoured with the opinion of His Excellency the Governor in Council as to whether it would be feasible to legislate generally regarding the sale and possession of this poison. It would be essential to protect its use for trade or manufacturing purposes, and it is not the desire of the Government of India to make the use of it for legitimate purposes more costly than it is or to procure revenue from fees of any kind.

4. Although the reasons which have actuated the Government of India in the past, and which are referred to in paragraph 2 of this letter, appear to the Governor General in Council, as at present advised, to be fatal to any scheme for the *general* restriction and regulation of poisons other than arsenic, there do not seem to the Governor General in Council to be the same objections to providing for a certain amount of control over vendors of poisons within the limits of Municipal towns. It might, His Excellency in Council thinks, be possible, without causing hardship, to provide that Municipalities should require that all vendors of European medicines or indigenous drugs should take out licenses, and that no poisons should be sold by such licensees except (1) on medical prescription, or (2) to persons whose name, address, etc., should be entered in a register to be kept for the purpose.

Legislation of this nature would not, it is true, go to the root of the evil so long as sale in rural tracts remains unregulated, but there would, in the opinion of the Government of India, be a certain advantage in placing the sale of poisons within Municipal limits under regulation, and I am to say that the Government of India would be glad to have the opinion of His Excellency the Governor in Council on this suggestion.

5. The Governor General in Council also desires to learn whether any practicable scheme for the licensing of vendors of drugs in rural tracts, under which they could be brought under effective control, seems to the Governor in Council to be feasible.

6. The question of legislating for the restriction of the sale of poisons was, as the Governor in Council is probably aware, discussed at the Medical Congress held in Calcutta last winter, and I am to enclose a copy of such of their papers on the subject as seem likely to be of assistance in a consideration of the question. I am, however, to remark that, in view of the conclusions embodied in the Report of the Royal Commission on Opium, the suggestions of the Medical Congress in regard to the sale of opium should be left out of consideration when dealing with the question now referred.

I have the honour to be,

SIR,

Your most obedient Servant,

J. P. Hewett.

Offg. Secretary to the Govt. of India.

[G / 9]

2,000—2-4-95.

pubd. 30-4-79: 205-212 orgl.
" 5-12-91: 2483-84 orgl.
4 papers quoted in the note for orders in the two Govt.
Selection from Govt. of I. Records. cattle poison

Current No. 478

DEPARTMENT.

From

J. P. Hewett Esq^re
"
Simla

No.

Dated 26th August 1895

Received 2nd Sept^r —

Regd 2nd

Enclosures —

SUBJECT.

Inviting the attention to the precis of the correspondence on the question of legislating for the regulation of sale and possession of poisons.

Rep. Papers published - though of the printed copies there have been numerous Some time Papers are not of much use. is not practicable; but it is confd.

Note Govt. does not belong to Govt. of India

Orders

No 236
J

D.O. No. 478

HOME DEPARTMENT
INDIA

CHIEF SECRETARY'S
GOVERNMENT OF MADRAS
RECEIVED
2 SEP 1895

Simla, the 21st August 1895.

Jud. 4207
1895.

MY DEAR Mr Price,

The question of legislating for the regulation of sale and possession of poisons has again come under the notice of the Government of India, and a circular letter calling for opinions on the subject from Local Governments and Administrations and the Calcutta High Court is now under issue.

The question is beset with many difficulties, and as it is desirable that it should be examined from every point of view, I am desired to invite the attention of the Government of Madras to the précis of the correspondence on the subject (which was communicated to Mr Masters with Sir C. Bernard's demi-official letter of the 18th September 1878).

My official letter refers, in paragraph 2, to certain Selections of the Government of India which, together with the papers above referred to, and those connected with the Proceedings of the Medical Congress held last cold weather in Calcutta, will put the case fairly before the Govt. of Madras.

Yours sincerely,

J. P. Hewett

To

The Honourable J. F. Price, C. S. I.,
Chief Secretary to the Govt. of Madras.

[G. / 25.]
500—21-5-95.

Judicial Department.

C. No. 4184 / 4207 / 95.
Do 478/95.

FOR ORDERS.

In C. No. 4207/95 the Govt. of India asserts again the question of the advisability of endeavouring by legislation to restrict and regulate the sale & possession of poisons in India & invites opinion on the following points:—

(1) As to whether it would be feasible to legislate generally regarding the sale & possession of arsenic;

(2) Whether it might not be possible, without causing hardship, to provide that Municipalities should require that all vendors of European medicines or indigenous drugs should take out licenses, & that no poisons should be sold by such licensees except (1) on medical prescription, or (2) to persons whose name, address, etc., should be entered in a register to be kept for the purpose, & thus place the sale of poisons within municipal limits under regulation;

(3) Whether any practicable scheme for the licensing of vendors of drugs in rural tracts, under which they could be brought under effective control, is feasible!

Do 478

In this connection the Govt. of India specially

Sale of Poisons.

FOR ORDERS.

HON'BLE MEMBER.

CS

F

...ites attention (demi-officially) to the précis of correspondence on the subject communicated in ...78 :— vide papers in the Confidential Cover.

...ter Ac^o. 4184/95 the Clerk of the Crown, ...rites attention of the Govt. to the case of one Muthu ...ami Nayaka — charged with having caused the ...eath of by administering arsenic with sugar — ...recently disposed of at the High Court Sessions ...and reports, as directed by the Hon'ble Mr. J. Shepherd, for the consideration of Govt., the recommendation of the Special Jury who tried the case, "that Govt. should be moved to restrict the sale of poisons." This might be recorded with the remark that the matter is now again under consideration.

With regard to the general question of legislation, attention is solicited to the note forwarded in the original of G.O. dated 5th Dec^r. 1891, No. 2483/4, Judl., which summarizes the previous correspondence on the subject from 1866.

Orders are solicited as to whether the matter may now be referred to (1) Chamber of Commerce; (2) Madras Trades Association; (3) Local & Mun. Dept.; (4) All Dists.; (5) Dy. of Police; (6) Comr. of Police; (7) Chemical Examiner; (8) Surgeon General; (9) High Court; (10) the Board of Rev.? —

Is it necessary to consult the District Magistrates? Will it not suffice to select say Messrs. Nicholson, Stokes Wynne, Tremenhere, Rees, H.E.C. Stuart, Atkinson & Weir

D 10-9-95

Dy. 23/9/95

G.O. 2001 26.9.95

[G. 24.] 500—23-7-95.

Judl. DEPARTMENT.

Papers to be read in proceedings :—

768

Again G.O., dated 189 , No.

Again G.O., dated 189 , No.

Current No. of 189 , dated , from

" " " 189 , " , "

" " 4207 " 189 , " , "

ORDER. dated 26th September 1895, No. 2001.

for favour of remarks

Pp.

Communicated to the following Hon'ble the Judges of the High Court, The Board of Revenue, the Surgeon General, the D.I. of Police, the Comm^r. of Police, Madras, the Chemical Examiner, the Chamber of Commerce, the Madras Trades' Association, the Local & Mun. Dept. & the following District Magistrates,

Mr. F.A. Nicholson 3
Mr. G. Stokes 3
Mr. Lt. Wynne 3
Mr. J.H. Tremenhere 3
Mr. J.D. Rees 3
Mr. H.E.C. Stuart 3
Mr. J.N. Atkinson 3
Mr. C.J. Weir 3

D 24-9-95

Dy. 25/9/95

The Hon'ble the Judges High Court 6
" Board of Revenue 6
" Surgeon Genl with the Govt. 6
" Inspr Genl of Police 6
" Comr of Police, Madras. 6
" Chemical Examiner 3
" Chamber of Commerce 3
" Madras Trades Association 3
" Local Fund & Mpl Dept 6

despd 27/10/95

despd 12/10/95

The above addressed.

Sale of Persons.

Cs.
A