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THURSDAY, 20TH JANUARY 1881.

Separate paging is given to this Part, in order that it may be filed as a separate compilation.

PART VI

BILLS 0 F THE COVERNMENT OF INDIA.

LEGISLATIVE DEPARTMENT.

The following Report of a Select Committee, together with the Bill as settled by them, was presented to the Council of the Governor General of India for the purpose of making Laws and Regulations on the 14th January, 1881:-

WE, the undersigned Members of the Select Committee to which the Bill to regulate the importa-

From Officiating Secretary to Government, Bengal, to Secretary to Government of India, Home, Revenue and Agricultural Department, No. 901, dated 15th November, 1879, and enclosures [Papers No. 1].

Acting Secretary to Government, Bombay, to ditto, No. 820, dated 19th March, 1880, and enclosure [Papers No. Officiating Secretary to Chief Commissioner, Assam, No. 1701, dated 2nd September, 1880

Paper No. 3].
Secretary to Chief Commissioner, Mysore and Coorg, No. 696-3, dated 31st August, 1880 [Paper No. 4].
Chief Commissioner, Ajmer-Merwara, No. 647, dated 17th September, 1880 (Paper No. 5).
Secretary for Birar to Resident, Hyderabad, No. 278, dated 22nd September, 1880 [Paper No. 5].

Secretary to Government, North-Western Provinces and Oudh, No. 1148, dated 29th September, 1880, and enclosure. [Papers No. 7].

Chief Secretary to Government, Madras, No. 2341, dated 28th September, 1880, and en-

closure [Papers No, 8]. Secretary to Government, Panjab, No. 3239, dated 9th October, 1880, and enclosures [Papers

Acting Secretary to Government, Bombay, No. 3041, dated 8th October, 1880, and enclosures [Papers No. 10].
Secretary for Birar to Resident, Hyderabad, No. 300, dated 6th October, 1880, and en-

closures [Papers No. 11].

Officiating Secretary to Government, Bengal, No. 463T, dated 23rd October 1880, and enclosures [Papers No. 12].

officiating Secretary to Chief Commissioner, British Burmah, No. 7571-15-5, dated 29th October, 1880, and enclosures [Papers No. 13].

Secretary, Chamber of Commerce, Bombay, dated 14th August, 1880, and enclosure [Papers No. 14.] Telegram from Government of Bombay, dated 7th December, 1880, [Papers No. 14].

will much simplify the measure by reducing the classes of petroleum to be dealt with to two, as in England, namely, dangerous petroleum and ordinary petroleum.

3. The flashing point of dangerous petroleum, as originally fixed in accordance with the recommendation of the Bengal Committee at 83° F. by Abel's test, has been objected to in many quarters as unnecessarily and inconveniently high. The Lieutenant-Governor of Bengal now proposes to reduce it

tion, possession and transport of petroleum and other substances of a like nature was the referred, have honour to report that we have considered the Bill and the papers noted in the margin.

2. We propose, in

accordance with the opinion now express-

ed by the Government of Bengal, to do away

with the distinction

second class petroleum

This distinction appears to us unnecessary, and its abolition

first

by

Committee.

and

between

Bengal

introduced

to 78°; and on fully considering the papers submitted to us, we are prepared to reduce it even lower. There can be no doubt that the circumstance that the temperature of the air in most parts of India is throughout a great portion of the year higher than that which prevails in England, would, all other things being equal, make a petroleum flashing at a temperature between 70° and 80° F. more dangerous here than in England; but against this must be set off the greater openness and airiness of Indian buildings and the comparative absence of carpets, curtains and other such articles likely to catch fire; and, though at times serious accidents have occurred in this country, it can hardly be said that there is evidence to show that the danger is so serious as to warrant our extending the severe restrictions which the Bill imposes on dangerous petroleum to any petroleum flashing above the point, which has, after full consideration, been fixed upon in England and which has hitherto been adopted in Bengal. We have accordingly fixed the flashing point of dangerous petroleum at 73° F. by Abel's test equal to 100° F.

4. We have made some other amendments in the Bill, with a view to relaxing in certain particulars the restrictions it imposes; thus, in order to avoid the delay, to which ships bringing petroleum to our ports might have been subjected if the samples furnished had to be tested before the petroleum was landed, we have altered the wording of the Bill so as to allow of the petroleum being landed directly the samples are delivered. We think that the control which the Bill gives over the petroleum when landed will be amply sufficient to secure the object in view.

5. Again we have confined the provision of the Bill which requires petroleum to be kept in indelibly marked vessels, to dangerous petroleum, and we have reduced the maximum penalty for illegally importing, possessing or transporting petroleum from three months' imprisonment and one thousand rupees fine, to one month's imprisonment and five hundred rupees fine.

6. The power given by the Bill to extend the Act to other inflammable substances appears to be unnecessarily large, and we have therefore confined it to cases in which those substances are fluid.

7. The only other alterations we have made which are of sufficient importance to call for notice here are the insertion of a provision in section 7 of the Bill as now amended, empowering the Government to fix ports at which only petroleum may be imported, the addition of a clause to section 12 entitling a dealer, whose petroleum is tested under the Act, to a copy of the certificate of the result of the testing, free of charge, the insertion in section 16 of words providing that the tins or other vessels in which confiscated petroleum is contained may be confiscated with it, and the addition of a provision in section 18 requiring all rules made under the Act to be published for a month before they take effect.

8. The Bill, with its Statement of Objects and Reasons, has been published in English, in the local official Gazettes, except those of the Central Provinces and Assam. Its publication in the vernacular Gazettes has been reported by the Governments of Bengal and the North-Western Provinces and Oudh, and the Chief Commissioner of Mysore. It has met with considerable opposition on account of its stringency, but if the important mitigations of its provisions which we now recommend are approved by the Council, we think it may safely be passed without being again re-published. The measure having been now before the public for six months, it can hardly be said that timely notice of it has not been given to all concerned; but in order to guard against the possibility of hardship to holders or consignees of dangerous petroleum, we propose that it should not come into force till the 1st of July.

WHITLEY STOKES.
J. GIBBS.
B. W. COLVIN.
G. F. MEWBURN,

The 14th January 1881.

No. II.

THE PETROLEUM BILL, 1881.

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THE SCHEDULE.

No. II.

A Bill to regulate the importation, possession and transport of Petroleum and other fluids of a like nature.

Whereas it is expedient to regulate the importation, possession and Preamble. transport of petroleum and other fluids of a like nature; It is hereby enacted as follows :-

Preliminary.

Committee's recommendations, para 1.

Short title.

Commencement.

1. This Act may be called "The Petroleum Act, 1881"; and it shall come into force on the first day of July, 1881.

The provisions of this Act relating to dangerous petroleum, and the im-Local extent. extend to the whole of British India. The rest of this Act extends only to such local areas as the Local Government may, from time to time, by notification in the official Gazette, direct.

2. The Indian Ports Act, 1875, section thirtyseven, and Bengal Act No. III. of 1865 (to make Repeal of enactments. better provision for the prevention of injury from fire in Ports, and to provide for the safe keeping of Inflammable Oils in Ports and places within the Provinces under the control of the Lieutenant-Governor of Bengal) are hereby repealed.

3. In this Act, unless there is something repugnant in the subject or Interpretation-clause. context,-

34 & 35 Vic. c. 105, s. 3, withadditions "Petroleum" includes also the liquids commonly known by the names of rock oil, Rangoon oil, " Petroleum." from Committee's report. Burma oil, kerosine, paraffine oil, mineral oil, petroline, gasoline, benzol, benzoline, benzine and any inflammable liquid that is made from petro-

leum, coal, schist, shale, peat or any other bituminous substance, or from any products of petroleum,

but it does not include any oil ordinarily used for lubricating purposes, and having its flashing point at or above two hundred and fifty degrees of Fahrenheit's thermometer.

Explanation.—The flashing point of petroleum Committee means the lowest temperature at which the petroleum yields a vapour which will furnish a momentary flash or flame when tested with the apparatus and in the manner described in the Schedule hereto annexed.

"Dangerous petroleum" means petroleum having its flashing point, " Dangerous petroleum." below seventy-three degrees of Fahrenheit's thermometer:

"Import" means to bring into British India "Import." by sea or land:

and "importation" means the bringing into British India as aforesaid.

"Transport" means to remove from one place to another within British " Transport." India:

Dangerous Petroleum.

4. No quantity of dangerous petroleum exceeding forty gallons shall

Dangerous petroleum in quantities exceeding 40 exceeding 40 gallons.

be imported or transported, or kept by any one person or on the same

premises, except under, and in accordance with the conditions of, a license from the Local Government granted as next hereinafter provided.

Application for license to import, transport or possess such petroleum.

Every application for such a license shall be in writing, and shall declare-

(a) the quantity of such petroleum which it is desired to import, transport or possess, as the case may be;

(b) the purpose for which the applicant believes that such petroleum will be used; and

(c) that petroleum other than dangerous petroleum cannot be used for such purpose.

If the Local Government sees reason to believe that such petroleum will Power to grant license. be used for such purpose, and that no petroleum other than dangerous petroleum can be used for such purpose, it may grant such license for the importation, transport or possession (as the case may be) of such petroleum, absolutely or subject to such conditions as it thinks fit.

5. No quantity of dangerous petroleum equal to or less than forty gal-Dangerous petroleum in quantities not exceeding 40 lons shall be kept or transgallons. ported without a license:

Provided that nothing in this section shall apply in any case when the quantity of such petroleum kept by any one person or on the same premises, or transported, does not exceed three gallons, and such petroleum is placed in separate glass, earthenware or metal vessels, each of which contains not more than a pint and is securely stopped.

Vessels containing dangerous petroleum to be marked. All dangerous petroleum:

- (a) which is kept at any place after seven days from the date on which it is imported, or
 - (b) which is transported, or
- which is sold or exposed for sale, shall be contained in vessels which shall bear an indelible mark or a label in conspicuous characters, stating the nature of the contents thereof.

34 & 35 V c. 105, s.

Cf. Act 1 1878, s.

Committee's recommendations, para. 3.

Petroleum generally.

mmittee's commendaons, paras. 12 to 20.

7. The Local Government may, from time to time, make rules consistent Power to make rules as to the importation of with this Act to regulate the importation of petropetroleum. leum and in particular-

- (a) for ascertaining the quantity and description of any petroleum on board a ship;
- (b) to provide for the delivery, by the master of a ship or the consignees of the cargo, of samples of petroleum before such petroleum is landed from such ship, and for the testing thereof;
- (c) to determine the ports at which only petroleum may be imported; and
- (d) to regulate the time and mode of, and the precautions to be taken on, landing or transhipping any petroleum.

In this section-

"Ship" includes anything made for the conveyance by water of human beings or property:

"Master" includes every person (except a Pilot or Harbour Master) having " Master.". for the time being the charge or control of a ship.

.8. No quantity of petroleum exceeding five hundred gallons, shall be Possession and transport kept by any one person or of petroleum, on the same premises or shall be transported except under and in accordance with the conditions of a license granted under this Act.

9. The Local Government may from time to time make rules consist-Power to made rules as to such possession and transport. ent with this Act as to the granting of licenses to possess or transport petroleum in cases where such licenses are by law required.

Such rules may provide for the following among other matters, that is to say-

in the case of licenses to possess petroleum-

- (a) the nature and situation of the premises for which they may be granted, and
- (b) the inspection of such premises and the testing of petroleum found thereon;

in the case of licenses to transport petroleum-

- (c) the manner in which the petroleum shall be packed, the mode of transit, and the route by which it is to be taken, and
- (d) the stoppage and inspection of it during transit:

in the case of both such licenses-

- (e) the authority by which the license may be granted;
 - (f) the fee to be charged for it;
 - (g) the quantity of petroleum it is to cover;
 - (h) the conditions which may be inserted in it;
- (i) the time during which it is to continue in force; and
 - (k) the renewal of the license.

10. Any officer specially authorized by name or by virtue of his office in

Power to inspect and require dealer to sell samples. this behalf by the Local Government may require any dealer in petroleum

to show him any place, and any of the vessels, in which any petroleum in his possession is stored or contained, to give him such assistance as he may require for examining the same, and to deliver to him samples of such petroleum on payment of the value of such samples.

11. When any such officer has, in exercise of the powers conferred by

Notice to be given when officer proposes to test samples.

section ten, or by purchase, obtained a sample of petroleum in the posses-

sion of a dealer, he may give a notice in writing to such dealer informing him that he is about to test such sample or cause the same to be tested with the apparatus and in the manner described in the schedule hereto annexed, at a time and place to be fixed in such notice, and that such person or his Agent may be present at such testing.

12. On any such testing if it appears to the officer or other person so Certificate as to result testing that the petro-leum from which such of such testing. sample has been taken is or is not dangerous

petroleum, such officer or other person may certify such fact, and the certificate so given shall be receivable as evidence in any proceedings which may be taken under this Act against the dealer in whose possession such petroleum was found, and shall, until the contrary is proved, be evidence of the fact stated therein; and a certified copy of such certificate shall be given gratis to the dealer at his request.

Penalties.

13. Any person who, in contravention of this Act or of any rules made Penalty for illegal importation, &c,, of petrohereunder, imports, possesses or transports any leum. petroleum; and any person who otherwise contravenes any such rules or any condition contained in a license granted hereunder, shall be punished with imprisonment for a term which may extend to one month, or with fine which may extend to five hundred rupees,

14. Any person keeping, transporting, selling 34 & 35 Vic. or exposing for sale petro-Penalty for keeping, transporting or exposing for sale petroleum in conleum in vessels not marked or labelled as prescribtravention of section 6. ed by section six, shall be punished with fine which may extend to fifty

or with both.

15. Any dealer in petroleum who refuses or 34 & 35 Vic.

Penalty for refusing to neglects to show to any c. 105, s. 12, Penalty for refusing to comply with section 10. officer authorized under section ten any place, or any of the vessels, in which petroleum in his possession is stored or contained, or to give him such assistance as he may require for examining the same, or to give him samples of such petroleum on payment of the value of such samples, shall be punished with fine which may extend to two hundred rupees.

34 & 35 Vic. c. 105, s. 11

Ibid.

Ibid.

s, 63,

Cf, Act I of 1878, s, 11. Confiscation of petroleum,

The section thirteen or section fourteen has been committed, the convicting

Magistrate may direct that,-

(a) the petroleum in respect of which the offence has been committed, or

(b) where the offender is importing or transporting or is in possession of any petroleum exceeding the quantity (if any) which he is permitted to import, transport or possess, as the case may be, the whole of the petroleum which he is importing, or transporting, or is in possession of,

shall, together with the tins or other vessels in which it is contained, be confiscated.

17. The criminal jurisdiction under this Act shall, in the towns of Calcutta, Madras, and Bom-

bay, be exercised by a Presidency Magistrate, and elsewhere by a Magistrate of the first class or (where specially empowered by the Local Government to try cases under this Act) a Magistrate of the second class.

Miscellaneous.

Rules when to have force of law.

Gazette, and shall, on the expiry of one month from the date of such publi-

cation, have the force of law:

Provided that no such rule shall be so published

Provided that no such rule shall be so published without the previous sanction of the Governor General in Council.

34 & 35 Vic., c. 105, s. 14. 19. The Governor General in Council may, from time to time, by notification in the Gazette of India, apply the whole or any portion of this Act to any inflammable fluid other than petroleum, and may by such notification fix, in substitution for the quantities of petroleum fixed by sections four, five and eight, the quantities of such fluid to which these sections shall apply.

The Governor General in Council may by a like notification cancel any notification issued under this section.

THE SCHEDULE.

Specification explanatory of the Test Apparatus.

The following is a description of the details of the apparatus:—

Committee's recommendations, para, 5 and 42 and 43 Vic., c, 47,

The oil-cup consists of a cylindrical vessel 2" diameter, 27_0° " height (internal), with outward projecting rim f_0° " wide, 3'' from the top and 17_0° from the bottom of the cup. It is made of gun metal or brass (17 B. W. G.), tinned inside. A bracket, consisting of a short stout piece of wire, bent upwards and terminating in a point, is fixed to the inside of the cup to serve as a gauge. The distance of the point from the bottom of the cup is $1\frac{1}{2}$ ". The cup is provided with a close-fitting overlapping cover made of brass (22 B. W. G.) which carries the thermometer and test lamp. The latter is suspended from two supports from the side by means of trunnions, upon which it may be made to oscillate: it is provided with a

spout the mouth of which is $\frac{1}{16}''$ in diameter. The socket which is to hold the thermometer is fixed at such an angle, and its length is so adjusted that the bulb of the thermometer, when inserted to its full depth, shall be $1\frac{1}{2}''$ below the centre of the lid.

The cover is provided with three square holes, one in the centre $\frac{70}{10}''$ by $\frac{4}{10}''$, and two smaller ones, $\frac{3}{10}''$ by $\frac{2}{10}''$, close to the sides and opposite each other. These three holes may be closed and uncovered by means of a slide moving in grooves, and having perforations corresponding to those on the lid.

In moving the slide so as to uncover the holes, the oscillating lamp is caught by a pin fixed in the slide, and tilted in such a way as to bring the end of the spout just below the surface of the lid. Upon the slide being pushed back so as to cover the holes, the lamp returns to its original position.

Upon the cover, in front of, and in line with, the mouth of the lamp, is fixed a white bead the dimensions of which represent the size of the test flame to be used.

The bath or heated vessel consists of two flatbottomed copper cylinders (24 B. W. G.), an inner one of 3" diameter and 2½" height, and an outer one of 5½" diameter and 5¾" height; they are soldered to a circular copper plate (20 B. W. G.) perforated in the centre, which forms the top of the bath, in such a manner as to enclose the space between the two cylinders, but leaving access to the inner cylinder. The top of the bath projects both outwards and inwards about 3", that is, its diameter is about 9" greater than that of the body of the bath, while the diameter of the circular opening in the centre is about the same amount less than that of the inner copper cylinder. To the inner projection of the top is fastened by six small screws, a flat ring of ebonite, the screws being sunk below the surface of the ebonite to avoid metallic contact between the bath and the oil cup. The exact distance between the sides and bottom of the bath of the oil lamp is 11.". A split socket similar to that on the cover of the oil cup, but set at a right angle, allows a thermometer to be inserted into the space between the two cylinders. The bath is further provided with a funnel, an overflow pipe, and two loop handles.

The bath rests upon a cast-iron tripod stand, to the ring of which is attached a copper cylinder or jacket (24 B. W. G.), flanged at the top, and of such dimensions that the bath, while firmly resting on the iron ring, just touches with its projecting top the inward-turned flange. The diameter of this outer jacket is 6½". One of the three legs of the stand serves as support for the spirit lamp, attached to it by means of a small swing bracket. The distance of the wick holder from the bottom of the bath is 1".

Two thermometers are provided with the apparatus, the one for ascertaining the temperature of the bath, the other for determining the flashing point. The thermometer for ascertaining the temperature of the water has a long bulb and a space at the top. Its range is from about 90° to 190° Fahrenheit. The scale (in degrees of Fahrenheit) is marked on an ivory back fastened to the tube in the usual way; it is fitted with a metal collar fitting the socket, and the part of the tube below the scale should have a length of about 3½" measured from the lower end of

the scale to the end of bulb. The thermometer for ascertaining the temperature of the oil is fitted with collar and ivory scale in a similar manner to the one described. It has a round bulb, a space at the top, and ranges from about 55° F. to 150° F.; it measures from end of ivory back to bulb $2\frac{1}{4}$ ".

Note,—A model apparatus is deposited at the office of the Chemical Examiner to Government at Calcutta,

Directions for applying the Test.

1. The test apparatus is to be placed for use in a position where it is not exposed to currents of air or draughts.

2. The heating vessel or water-bath is filled by pouring water into the funnel until it begins to flow out at the spout of the vessel. The temperature of the water at the commencement of the test is to be 130° Fahrenheit, and this is attained in the first instance either by mixing hot and cold water in the bath, or in a vessel from which the bath is filled, until the thermometer which is provided for testing the temperature of the water gives the proper indication; or by heating the water with the spirit lamp (which is attached to the stand of the apparatus) until the required temperature is indicated.

If the water has been heated too highly, it is easily reduced to 130° by pouring in cold water little by little (to replace a portion of the warm water) until the thermometer gives the proper reading.

When a test has been completed, this waterbath is again raised to 130° by placing the lamp underneath, and the result is readily obtained while the petroleum cup is being emptied, cooled, and refilled with a fresh sample to be tested. The lamp is then turned on its swivel from under the apparatus, and the next test is proceeded with.

3. The test lamp is prepared for use by fitting it with a piece of flat plaited candlewick, and filling it with colza or rape oil up to the lower edge of the opening of the spout or wick tube. The lamp is trimmed so that when lighted it gives a flame of about 0·15 of an inch diameter, and this size of flame which is represented by the projecting white bead on the cover of the oil cup is readily maintained by simple manipulation from time to time with a small wire trimmer.

When gas is available it may be conveniently used in place of the little oil lamp, and for this

purpose a test flame arrangement for use with gas may be substituted for the lamp.

- 4. The bath having been raised to the proper temperature, the oil to be tested is introduced into the petroleum cup, being poured in slowly until the level of the liquid just reaches the point of the gauge which is fixed in the cup. In warm weather the temperature of the room in which the samples to be tested have been kept should be observed in the first instance, and if it exceeds 65°, the samples to be tested should be cooled down (to about 60°) by immersing the bottle containing them in cold water, or by any other convenient method. The lid of the cup, with the slide closed, is then put on, and the cup is put into the bath or heating vessel. The thermometer in the lid of the cup has been adjusted so as to have its bulb just immersed in the liquid, and its position is not under any circumstances to be altered. When the cup has been placed in the proper position, the scale of the thermometer faces the operator.
- 5. The test lamp is then placed in position upon the lid of the cup, the lead line or pendulum,* which has been fixed in a convenient position in front of the operator, is set in motion, and the rise of the thermometer in the petroleum cup is watched. When the temperature has reached about 66°, the operation of testing is to be commenced, the test flame being applied once for every rise of one degree in the following manner:—

The slide is slowly drawn open while the pendulum performs three oscillations, and is closed during the fourth oscillation.

NOTE.—If it is desired to employ the test apparatus to determine the flashing points of oils of very low volatility, the mode of proceeding is to be modified as follows:—

The air chamber which surrounds the cup is filled with cold water, to a depth of $1\frac{1}{2}$ inches, and the heating vessel or water-bath is filled as usual, but also with cold water. The lamp is then placed under the apparatus and kept there during the entire operation. If a very heavy oil is being dealt with, the operation may be commenced with water previously heated to 120° , instead of with cold water.

*This pendulum is two (2) feet in length from the point of suspension to the centre of gravity of the weight.

D. FITZPATRICK,
Secretary to the Government of India."

[Published with the "Bombay Government Gazette" on the 20th January 1881.]

PART VI.

BILLS OF THE COVERNMENT OF INDIA.

LEGISLATIVE DEPARTMENT.

The following Bill was introduced into the Council of the Governor General of India for the purpose of making Laws and Regulations on the 30th December 1880, and was referred to a Select Committee :-

Bill No. 22 of 1880.

A Bill to empower the Government to remove or destroy obstructions in fairways, and to prevent the creation of such obstructions.

WHEREAS it is expedient to empower the Government to remove or Preamble. destroy obstructions to navigation in fairways in the seas adjacent to British India, and to prevent the creation of such obstructions; It is hereby enacted as follows:-

This Act may be called "The Obstructions in Fairways Act, 1881;" Short title.

Commencement.

17 (20)

and it shall come into force at once.

But nothing herein contained shall apply to vessels belonging to Her Majesty or hired by Her Majesty, or by the Secretary of State for India in Council.

2. Whenever in any fairway in any of the seas

Local Government empowered destroy to remove obstruction in

adjacent to British India, any vessel is sunk, stranded or abandoned, or any fishing stake, timber or other thing is placed or left, the Local Government of the part of British

India in or near which such vessel, fishing stake, timber or other thing is situate may, if in its opinion such thing is, or is likely to become, an obstruction or danger to navigation,

- (a) cause such thing or any part thereof to be removed; or,
- (b) if such thing is of such a description or so situate that, in the opinion of the Local Government, it is not worth removing, destroy the same or any part thereof.

3. Whenever anything is removed under sec-Act VII. of Government entitled to expenses incurred in re-moving obstruction.

tion two, the Government shall be entitled to receive a reasonable sum, having regard to all the circumstances of the case, for the expenses incurred in respect of such removal.

Any dispute arising concerning the amount due under this section, in Dispute concerning such respect of anything so removed, shall be determined by the Magistrate of the District or Presidency Magistrate of the District or Presidence of the District of Pr dency Magistrate having jurisdiction at the place where such thing is, upon application to him for

that purpose by either of the disputing parties. 4. The Local Government shall, when anything is removed under 1880, s. 76. Notice of removal to be section two, publish in given by Local Government. the local official Gazette a notification containing a description of such thing, and the time at which and the place from which the same was removed.

5. If after publishing Act VII. such notification, such 1880, s. 77. Things removed may, in certain cases, be sold. thing is unclaimed,

or if the person claiming the same fails to pay the amount due for the said expenses and any other charges properly incurred by the Local Government in respect thereof,

the Local Government may sell such thing by public auction, if it is of a perishable nature, forthwith, and if it is not of a perishable nature, at any time not less than six months after publishing such notification as aforesaid.

6. On the realization of the proceeds of such sale, the amount due for Proceeds how applied. expenses and charges as aforesaid, together with the expenses of the sale, shall be deducted therefrom, and the surplus (if any) shall be paid to the owner of the thing sold, or, if no such person appear and claim such surplus, shall be held in deposit for payment, without interest, to any person thereafter establishing his right to the same :

Provided that he makes the claim within one year from the date of the sale.

For the purposes of this Act, the term 40 & 41 V.*

"vessel" shall be deemed c. 16, s. 6 " Vessel" to include to include every article tackle, cargo, &c. or thing or collection of things being or forming part of the tackle, equipment, cargo, stores or ballast of a vessel, and any proceeds arising from the sale of a vessel, and of the cargo thereof, or of any other property re-

Act VII. o 1880, s. 75.

Act VII. o

Act VII. o

Act VII 1880, s. 78.

1880, в. 75.

vi. -3 a

covered therefrom, shall be regarded as a common fund.

8. The Governor General in Council may from

Power to make rules to regulate and prohibit the placing of obstructions in fairways. time to time, by notification in the Gazette of India, make rules to regulate or prohibit in any fairway in any of the seas

adjacent to British India, the placing of fishing stakes, the casting or throwing of ballast, rubbish, or any other thing likely to give rise to a bank or shoal, or the doing of any other act which will, in his opinion, cause or be likely to cause obstruction or danger to navigation.

9. Whoever is guilty of any act or omission
Penalty for breach of such rules.

Such offence in any district or Presidency-town in which he is found, and shall be punished with imprisonment for a term which may extend to six months, or with fine which may extend to five hundred rupees, or with both.

10. Nothing herein contained shall be deemed 40 & 41 Vic., to prevent the exercise by 16, s. 8. the Government of any other powers possessed

by it in this behalf.

STATEMENT OF OBJECTS AND REASONS.

The object of this Bill is to empower the Government to remove obstructions to navigation which may exist in fairways situate in seas adjacent to British India, and to prohibit the creation of such obstructions for the future. The advantages of having such a law have been impressed upon the Government by certain recent cases. In one of these a question has been raised as to the power of the Government to remove the fishing stakes which are annually placed during the fine season in the sea off the port of Bombay, and which, having recently been advanced into the approach to the harbour, are now a source of serious danger to vessels frequenting that port. In another case which related to the deposit of ballast by ship-masters, at the mouth of the Rangoon river, a practice which, if permitted, might cause serious impediment and danger to the navigation of the approaches to the port of Rangoon, the need for some further preventive powers than those which Government now possesses, has been made apparent.

There can be no doubt that it is extremely desirable that the powers of Government officers, and the procedure to be followed by them, in relation to matters of this nature, should be clearly defined, and as the Indian Statute-Book, as it now stands, does not deal adequately with the subject, the present Bill has been prepared. A precedent for such legislation will be found in the Imperial Statute 40 & 41 Vic., c. 16 (the Removal of Wrecks Act, 1877). The Bill, while following generally the lines of the statute, goes beyond it in two material respects. The power to remove obstructions conferred by it is not confined, as in the statute, to the case of obstructions caused by wrecks, but extends also to fishing stakes, ballast and any other thing which may form an obstruction or danger to navigation. The other point in which the Bill goes beyond the statute is that, in addition to giving power to remove existing obstructions, it enables the Government to prevent the wilful creation of obstructions in the future. With this object the Governor General in Council is empowered (section 7) to make rules to regulate or prohibit in any fairway the placing of fishing stakes, the casting of ballast, or the doing of any other act which will, in his opinion, cause or be likely to cause danger or obstruction to navigation.

The 24th December 1880.

(Signed) WHITLEY STOKES.

D. FITZPATRICK,
Secretary to the Government of India.

[Published with the "Bombay Government Gazette" on the 27th January 1881.]

PART VI.

BILLS OF THE COVERNMENT OF INDIA.

LEGISLATIVE DEPARTMENT.

The following Report of a Select Committee, together with the Bill as settled by them, was presented to the Council of the Governor General of India for the purpose of making Laws and Regulations on the 14th January, 1881 :-

WE, the undersigned Members of the Select Committee to which the Bill to regulate the importa-

From Officiating Secretary to Government, Bengal, to Secretary to Government of India, Home, Revenue and Agricultural Department, No. 901, dated 15th November, 1879, and enclosures

[Papers No. 1].
Acting Secretary to Government, Bombay, to ditto, No. 820, dated 19th March, 1880, and

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Secretary for Birár to Resident, Hyderabad, No. 278, dated 22nd September, 1880 [Paper No. 6].

No. 6]. Secretary to Government, North-Western Provinces and Oudh, No. 1148, dated 29th Sep-

tember, 1880, and enclosure. [Papers No. 7].
Chief Secretary to Government, Madras, No. 2341, dated 28th September, 1880, and enclosure [Papers No. 8]. Secretary to Government, Panjáb, No. 3239, dated 9th October, 1880, and enclosures [Papers

No. 9]. Acting Secretary to Government, Bombay, No. 3041, dated 8th October, 1880, and enclosures [Papers No. 10].

Papers No. 10].
Secretary for Birár to Resident, Hyderabad, No. 300, dated 6th October, 1880, and enclosures [Papers No. 11].
Officiating Secretary to Government, Bengal, No. 463T, dated 23rd October 1880, and enclosures [Papers No. 12].
Officiating Secretary to Chief Commissioner, British Burmah, No. 7571-15-5, dated 29th October, 1880, and enclosures [Papers No. 13].
Secretary, Chamber of Commerce, Bombay, dated 14th August, 1880, and enclosure [Papers No. 14.]

Telegram from Government of Bombay, dated 7th December, 1880, [Papers No. 14].

measure by reducing the classes of petroleum to be dealt with to two, as in England, namely, dangerous petroleum and ordinary petroleum.

- 3. The flashing point of dangerous petroleum, as originally fixed in accordance with the recommendation of the Bengal Committee at 83° F. by Abel's test, has been objected to in many quarters as unnecessarily and inconveniently high. The Lieutenant-Governor of Bengal now proposes to reduce it to 78°; and on fully considering the papers submitted to us, we are prepared to reduce it even lower. There can be no doubt that the circumstance that the temperature of the air in most parts of India is throughout a great portion of the year higher than that which prevails in England, would, all other things being equal, make a petroleum flashing at a temperature between 70° and 80° F. more dangerous here than in England; but against this must be set off the greater openness and airiness of Indian buildings and the comparative absence of carpets, curtains and other such articles likely to catch fire: and, though at times serious accidents have occurred in this country, it can hardly be said that there is evidence to show that the danger is so serious as to warrant our extending the severe restrictions which the Bill imposes on dangerous petroleum to any petroleum flashing above the point, which has, after full consideration, been fixed upon in England and which has hitherto been adopted in Bengal. We have accordingly fixed the flashing point of dangerous petroleum at 73° F. by Abel's test equal to 100° F. by the old test.
- 4. We have made some other amendments in the Bill, with a view to relaxing in certain particulars the restrictions it imposes; thus, in order to avoid the delay, to which ships bringing petroleum to our ports might have been subjected if the samples furnished had to be tested before the petroleum was

VI.-3 b

tion, possession and transport of petroleum and other substances of a like nature was referred, have the honour to report that we have considered the Bill and the papers

noted in the margin.

2. We propose, in accordance with the opinion now expressed by the Government of Bengal, to do away with the distinction between first and second class petroleum introduced by the Committee. Bengal This distinction appears to us unnecessary, and its abolition will much simplify the

landed, we have altered the wording of the Bill so as to allow of the petroleum being landed directly the samples are delivered. We think that the control which the Bill gives over the petroleum when landed will be amply sufficient to secure the object in view.

- 5. Again we have confined the provision of the Bill which requires petroleum to be kept in indelibly marked vessels, to dangerous petroleum, and we have reduced the maximum penalty for illegally importing, possessing or transporting petroleum from three months' imprisonment and one thousand rupees fine, to one month's imprisonment and five hundred rupees fine.
- 6. The power given by the Bill to extend the Act to other inflammable substances appears to be unnecessarily large, and we have therefore confined it to cases in which those substances are fluid.
- 7. The only other alterations we have made which are of sufficient importance to call for notice here are the insertion of a provision in section 7 of the Bill as now amended, empowering the Government to fix ports at which only petroleum may be imported, the addition of a clause to section 12 entitling a dealer whose not release is that the dealer whose not release is that the dealer whose not release is the d dealer, whose petroleum is tested under the Act, to a copy of the certificate of the result of the testing, free of charge, the insertion in section 16 of words providing that the tins or other vessels in which confiscated petroleum is contained may be confiscated with it, and the addition of a provision in section 18 requiring all rules made under the Act to be published for a month before they take effect.
- 8. The Bill, with its Statement of Objects and Reasons, has been published in English official Gazettes, except those of the Central Provinces and Assam. Its publication in the vernacular official Gazettes, except those of the Central Provinces and Assam. Its publication in the vernacular official Gazettes, except those of the Central Provinces and Assam. Gazettes, except those of the Central Provinces and Assam. Its publication in the ventacular Gazettes has been reported by the Governments of Bengal and the North-Western Provinces and Oudh, and the Chief Commissioner of Mysore. It has met with considerable opposition on account of its stringency, but if the important mitigations of its provisions which we now recommend are approved by the Council, we think it may safely be passed without being again re-published. The measure having been now before the public for six months, it can hardly be said that timely notice of it has not been given to all concerned; but in order to guard against the possibility of hardship to holders or consignees of depressions with the latest the late of dangerous petroleum, we propose that it should not come into force till the 1st of July.

WHITLEY STOKES. J. GIBBS. B. W. COLVIN. G. F. MEWBURN.

The 14th January 1881.

No. II.

THE PETROLEUM BILL, 1881.

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- Dangerous petroleum in quantities not exceeding 40 gallons.
- 6. Vessels containing dangerous petroleum to be marked,

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- 18. Rules when to have force of law.
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THE SCHEDULE.

No. II.

A Bill to regulate the importation, possession and transport of Petroleum and other fluids of a like nature.

WHEREAS it is expedient to regulate the importation, possession and and other fluids of a like nature; It is hereby enacted as follows :-

Preliminary.

Committee's recommendations, para. 1.

Short title.

Commencement.

1. This Act may be called "The Petroleum Act, 1881"; and it shall come into force on the first day of July, 1881.

The provisions of this Act relating to dangerous petroleum, and the importation of petroleum, extend to the whole of British India. The rest of this Act extends only to such local areas as the Local Government may, from time to time, by notification in the official Gazette, direct.

2. The Indian Ports Act, 1875, section thirtyseven, and Bengal Act Repeal of enactments. No. III. of 1865 (to make better provision for the prevention of injury from fire in Ports, and to provide for the safe keeping of Inflammable Oils in Ports and places within the Provinces under the control of the Lieutenant-Governor of Bengal) are hereby repealed.

3. In this Act, unless there is something repugnant in the subject or Interpretation-clause. context,-

34 & 35 Vic. c. 105, s. 3, withadditions from Committee's report.

"Petroleum" includes also the liquids commonly known by the names of rock oil, Rangoon oil, " Petroleum." Burma oil, kerosine, paraffine oil, mineral oil, petroline, gasoline, benzol, benzoline, benzine and any inflammable liquid that is made from petroleum, coal, schist, shale, peat or any other bituminous substance, or from any products of petroleum,

Committee's tions, para. 3.

but it does not include any oil ordinarily used recommenda- for lubricating purposes, and having its flashing point at or above two hundred and fifty degrees of Fahrenheit's thermometer.

Committee s recommendations, para. 4

Explanation.—The flashing point of petroleum means the lowest temperature at which the petroleum yields a vapour which will furnish a momentary flash or flame when tested with the apparatus and in the manner described in the Schedule hereto annexed.

"Dangerous petroleum" means petroleum having its flashing point " Dangerous petroleum." below seventy-three degrees of Fahrenheit's thermometer:

> "Import" means to "Import." bring into British India by sea or land:

and "importation" means the bringing into British India as aforesaid.

"Transport" means to remove from one place to another within British " Transport." India:

Dangerous Petroleum.

4. No quantity of dangerous petroleum exceeding forty gallons shall Dangerous petroleum in be imported or transportquantities exceeding

ed, or kept by any one person or on the same gallons.

premises, except under, and in accordance with the conditions of, a license from the Local Government granted as next hereinafter provided.

Application for license to import, transport or possess such petroleum.

Every application for such a license shall be in writing, and shall declare-

- (a) the quantity of such petroleum which it is desired to import, transport or possess, as the case may be;
- (b) the purpose for which the applicant believes that such petroleum will be used; and
- (c) that petroleum other than dangerous petroleum cannot be used for such purpose.

If the Local Government sees reason to believe that such petroleum will Power to grant license. be used for such purpose, and that no petroleum other than dangerous petroleum can be used for such purpose, it may grant such license for the importation, transport or possession (as the case may be) of such petroleum, absolutely or subject to such conditions as it thinks fit.

5. No quantity of dangerous petroleum equal to or less than forty gal-Dangerous petroleum in quantities not exceeding 40 lons shall be kept or transgallons. ported without a license:

Provided that nothing in this section shall apply in any case when the quantity of such petroleum kept by any one person or on the same premises, or transported, does not exceed three gallons, and such petroleum is placed in separate glass, earthenware or metal vessels, each of which contains not more than a pint and is securely stopped.

6. All dangerous 34 & 35 Vic. Vessels containing dangerous petroleum to be marked. petroleum:

(a) which is kept at any place after seven days from the date on which it is imported, or

(b) which is transported, or

(c) which is sold or exposed for sale, shall be contained in vessels which shall bear an indelible mark or a label in conspicuous characters, stating the nature of the contents thereof.

Cf. Act I of 1878, s. 9.

Petroleum generally.

7. The Local Government may, from time to time, makerules consistent

Power to make rules as to the importation of with this Act to regulate petroleum,

the importation of petro-leum and in particular—

- (a) for ascertaining the quantity and description of any petroleum on board a ship;
- (b) to provide for the delivery, by the master of a ship or the consignees of the cargo, of samples of petroleum before such petroleum is landed from such ship, and for the testing thereof;
- (c) to determine the ports at which only petroleum may be imported; and

34 & 35 Vic. c. 105, s. 7.

c. 105, s. 6.

Committee

recommend tions, paras 12 to 20.

(d) to regulate the time and mode of, and the precautions to be taken on, landing or transhipping any petroleum.

In this section—

"Ship" includes anything made for the conveyance by water of human "Ship." beings or property:

"Master" includes every person (except a Pilot or Harbour Master) having " Master." for the time being the charge or control of a ship.

8. No quantity of petroleum exceeding five hundred gallons, shall be Possession and transport kept by any one person or of petroleum. on the same premises or shall be transported except under and in accordance with the conditions of a license granted under this Act.

The Local Government may from time to time make rules consist-Power to make rules as ent with this Act as to to such possession and transport. the granting of licenses to possess or transport petroleum in cases where such licenses are by law required.

Such rules may provide for the following among other matters, that is to say-

in the case of licenses to possess petroleum-

- (a) the nature and situation of the premises for which they may be granted, and
- (b) the inspection of such premises and the testing of petroleum found thereon;

in the case of licenses to transport petroleum-

- (c) the manner in which the petroleum shall be packed, the mode of transit, and the route by which it is to be taken, and
- (d) the stoppage and inspection of it during transit;

in the case of both such licenses-

- (e) the authority by which the license may be granted;
 - (f) the fee to be charged for it;
 - (g) the quantity of petroleum it is to cover;
 - (h) the conditions which may be inserted in it;
- (i) the time during which it is to continue in force; and
 - (k) the renewal of the license.

10. Any officer specially authorized by name or by virtue of his office in Power to inspect and require dealer to sell samples. this behalf by the Local Government may require any dealer in petroleum to show him any place, and any of the vessels, in

which any petroleum in his possession is stored or contained, to give him such assistance as he may require for examining the same, and to deliver to him samples of such petroleum on payment of the value of such samples.

When any such officer has, in exercise of the powers conferred by Notice to be given when officer proposes to test samsection ten, or by purchase, obtained a sample of petroleum in the posses-

sion of a dealer, he may give a notice in writing

to such dealer informing him that he is about to test such sample or cause the same to be tested with the apparatus and in the manner described in the schedule hereto annexed, at a time and place to be fixed in such notice, and that such person or his Agent may be present at such testing.

12. On any such testing if it appears to the officer or other person so Certificate as to result testing that the petro-leum from which such of such testing. sample has been taken is or is not dangerous petroleum, such officer or other person may certify such fact, and the certificate so given shall be receivable as evidence in any proceedings which may be taken under this Act against the dealer in whose possession such petroleum was found, and shall, until the contrary is proved, be evidence of the fact stated therein; and a certified copy of such certificate shall be given gratis to the dealer at his request.

Penalties.

13. Any person who, in contravention of this Act or of any rules made Penalty for illegal imhereunder, imports, posportation, &c,, of petrosesses or transports any petroleum; and any per-

son who otherwise contravenes any such rules or any condition contained in a license granted hereunder, shall be punished with imprisonment for a term which may extend to one month, or with fine which may extend to five hundred rupees, or with both.

14. Any person keeping, transporting, selling 34 & 35 Vic. or exposing for sale petro-Penalty for keeping, transporting or exposing leum in vessels not markfor sale petroleum in con-travention of section 6, ed or labelled as prescribed by section six, shall be punished with fine which may extend to fifty rupees.

15. Any dealer in petroleum who refuses or 34 & 35 Vic. neglects to show to any c. 105, s. 12. officer authorized under Penalty for refusing to comply with section 10. section ten any place, or any of the vessels, in which petroleum in his possession is stored or contained, or to give him such assistance as he may require for examining the same, or to give him samples of such petroleum on payment of the value of such samples, shall be punished with fine which may extend to two hundred rupees.

16. In any case in which an offence under section thirteen or section 1878, s. 11. Confiscation of petrofourteen has been committed, the convicting Magistrate may direct that,-

- (a) the petroleum in respect of which the offence has been committed, or
- (b) where the offender is importing or transporting or is in possession of any petroleum exceeding the quantity (if any) which he is permitted to import, transport or possess, as the case may be, the whole of the petroleum which he is importing, or transporting, or is in possession of,

shall, together with the tins or other vessels in which it is contained, be confiscated.

s, 63.

Cf, Act I of

34 & 35 Vic., 105, s. 11.

Ibid.

17. The criminal jurisdiction under this Act shall, in the towns of Calcutta, Madras, and Bombay, be exercised by a Presidency Magistrate, and elsewhere by a Magistrate of the first class or (where specially empowered by the Local Government to try cases under this Act) a Magistrate of the second class.

Miscellaneous.

18. All rules made by the Local Government under this Act shall be published in the official Gazette, and shall, on the expiry of one month from the date of such publication, have the force of law:

Provided that no such rule shall be so published without the previous sanction of the Governor General in Council.

34 & 35 Vic., c, 105, s, 14, 19. The Governor General in Council may, from time to time, by notification in the Gazette of India, apply the whole or any portion of this Act to any inflammable fluid other than petroleum, and may by such

or any portion of this Act to any inflammable fluid other than petroleum, and may by such notification fix, in substitution for the quantities of petroleum fixed by sections four, five and eight, the quantities of such fluid to which these sections shall apply.

The Governor General in Council may by a like notification cancel any notification issued under this section.

THE SCHEDULE.

Specification explanatory of the Test Apparatus.

Committee's recommendations, para. 5 the apparatus:—

The following is a description of the details of the apparatus:—

The oil-cup consists of a cylindrical vessel 2"

Vic., c. 47. diameter, 2,10" height (internal), with outward

The oil-cup consists of a cylindrical vessel 2" diameter, 2^{**}_{10} " height (internal), with outward projecting rim $^{5}_{10}$ " wide, $^{3}_{8}$ " from the top and 1^{2}_{8} " from the bottom of the cup. It is made of gun metal or brass (17 B. W. G.), tinned inside. A bracket, consisting of a short stout piece of wire, bent upwards and terminating in a point, is fixed to the inside of the cup to serve as a gauge. The distance of the point from the bottom of the cup is 1^{1}_{2} ". The cup is provided with a close-fitting overlapping cover made of brass (22 B. W. G.) which carries the thermometer and test lamp. The latter is suspended from two supports from the side by means of trunnions, upon which it may be made to oscillate: it is provided with a spout the mouth of which is $\frac{1}{16}$ " in diameter. The socket which is to hold the thermometer is fixed at such an angle, and its length is so adjusted that the bulb of the thermometer, when inserted to its full depth, shall be 1^{1}_{2} " below the centre of the lid.

The cover is provided with three square holes, one in the centre $\frac{5}{10}''$ by $\frac{4}{10}''$, and two smaller ones, $\frac{3}{10}''$ by $\frac{2}{10}''$, close to the sides and opposite each other. These three holes may be closed and uncovered by means of a slide moving in grooves, and having perforations corresponding to those on the lid.

In moving the slide so as to uncover the holes, the oscillating lamp is caught by a pin fixed in vi.—3 c

the slide, and tilted in such a way as to bring the end of the spout just below the surface of the lid. Upon the slide being pushed back so as to cover the holes, the lamp returns to its original position.

Upon the cover, in front of, and in line with, the mouth of the lamp, is fixed a white bead the dimensions of which represent the size of the test flame to be used.

The bath or heated vessel consists of two flatbottomed copper cylinders (24 B. W. G.), an inner one of 3'' diameter and $2\frac{1}{2}''$ height, and an outer one of $5\frac{1}{2}''$ diameter and $5\frac{3}{4}''$ height; they are soldered to a circular copper plate (20 B. W. G.) perforated in the centre, which forms the top of the bath, in such a manner as to enclose the space between the two cylinders, but leaving access to the inner cylinder. The top of the bath projects both outwards and inwards about §", that is, its diameter is about §" greater than that of the body of the bath, while the diameter of the circular opening in the centre is about the same amount less, than that of the inner copper cylinder. To the inner projection of the top is fastened by six small screws, a flat ring of ebonite, the screws being sunk below the surface of the ebonite to avoid metallic contact between the bath and the oil cup. The exact distance between the sides and bottom of the bath of the oil lamp is 11". A split socket similar to that on the cover of the oil cup, but set at a right angle, allows a thermometer to be inserted into the space between the two cylinders. The bath is further provided with a funnel, an overflow pipe, and two loop handles.

The bath rests upon a cast-iron tripod stand, to the ring of which is attached a copper cylinder or jacket (24 B. W. G.), flanged at the top, and of such dimensions that the bath, while firmly resting on the iron ring, just touches with its projecting top the inward-turned flange. The diameter of this outer jacket is 6½". One of the three legs of the stand serves as support for the spirit lamp, attached to it by means of a small swing bracket. The distance of the wick holder from the bottom of the bath is 1".

Two thermometers are provided with the apparatus, the one for ascertaining the temperature of the bath, the other for determining the flashing point. The thermometer for ascertaining the temperature of the water has a long bulb and a space at the top. Its range is from about 90° to 190° Fahrenheit. The scale (in degrees of Fahrenheit) is marked on an ivory back fastened to the tube in the usual way; it is fitted with a metal collar fitting the socket, and the part of the tube below the scale should have a length of about 3½" measured from the lower end of the scale to the end of bulb. The thermometer for ascertaining the temperature of the oil is fitted with collar and ivory scale in a similar manner to the one described. It has a round bulb, a space at the top, and ranges from about 55° F. to 150° F.; it measures from end of ivory back to bulb 24".

Note,—A model apparatus is deposited at the office of the Chemical Examiner to Government at Calcutta,

Directions for applying the Test.

1. The test apparatus is to be placed for use in a position where it is not exposed to currents of air or draughts.

2. The heating vessel or water-bath is filled by pouring water into the funnel until it begins to flow out at the spout of the vessel. The temperature of the water at the commencement of the test is to be 130° Fahrenheit, and this is attained in the first instance either by mixing hot and cold water in the bath, or in a vessel from which the bath is filled, until the thermometer which is provided for testing the temperature of the water gives the proper indication; or by heating the water with the spirit lamp (which is attached to the stand of the apparatus) until the required temperature is indicated.

If the water has been heated too highly, it is easily reduced to 130° by pouring in cold water little by little (to replace a portion of the warm water) until the thermometer gives the proper reading.

When a test has been completed, this waterbath is again raised to 130° by placing the lamp underneath, and the result is readily obtained while the petroleum cup is being emptied, cooled, and refilled with a fresh sample to be tested. The lamp is then turned on its swivel from under the apparatus, and the next test is proceeded with.

3. The test lamp is prepared for use by fitting it with a piece of flat plaited candlewick, and filling it with colza or rape oil up to the lower edge of the opening of the spout or wick tube. The lamp is trimmed so that when lighted it gives a flame of about 0.15 of an inch diameter, and this size of flame which is represented by the projecting white bead on the cover of the oil cup is readily maintained by simple manipulation from time to time with a small wire trimmer.

When gas is available it may be conveniently used in place of the little oil lamp, and for this purpose a test flame arrangement for use with gas may be substituted for the lamp.

4. The bath having been raised to the proper temperature, the oil to be tested is introduced into the petroleum cup, being poured in slowly until the level of the liquid just reaches the point of the gauge which is fixed in the cup. In warm

weather the temperature of the room in which the samples to be tested have been kept should be observed in the first instance, and if it exceeds 65°, the samples to be tested should be cooled down (to about 60°) by immersing the bottle containing them in cold water, or by any other convenient method. The lid of the cup, with the slide closed, is then put on, and the cup is put into the bath or heating vessel. The thermometer in the lid of the cup has been adjusted so as to have its bulb just immersed in the liquid, and its position is not under any circumstances to be altered. When the cup has been placed in the proper position, the scale of the thermometer faces the operator.

5. The test lamp is then placed in position upon the lid of the cup, the lead line or pendulum,* which has been fixed in a convenient position in front of the operator, is set in motion, and the rise of the thermometer in the petroleum cup is watched. When the temperature has reached about 66°, the operation of testing is to be commenced, the test flame being applied once for every rise of one degree in the following manner:—

The slide is slowly drawn open while the pendulum performs three oscillations, and is closed during the fourth oscillation.

NOTE.—If it is desired to employ the test apparatus to determine the flashing points of oils of very low volatility, the mode of proceeding is to be modified as follows:—

The air chamber which surrounds the cup is filled with cold water, to a depth of $1\frac{1}{2}$ inches, and the heating vessel or water-bath is filled as usual, but also with cold water. The lamp is then placed under the apparatus and kept there during the entire operation. If a very heavy oil is being dealt with, the operation may be commenced with water previously heated to 120°, instead of with cold water.

*This pendulum is two (2) feet in length from the point of suspension to the centre of gravity of the weight.

D. FITZPATRICK, Secretary to the Government of India." [Published with the "Bombay Government Gazette" on the 3rd February 1881.]

PART VI.

BILLS OF THE COVERNMENT OF INDIA.

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Secretary for Birár to Resident, Hyderabad, No. 278, dated 22nd September, 1880 [Paper No. 6].

Secretary to Government, North-Western Provinces and Oudh, No. 1148, dated 29th September, 1880, and enclosure. [Papers No. 7].

Chief Secretary to Government, Madras, No. 2341, dated 28th September, 1880, and en-

closure [Papers No. 8]. Secretary to Government, Panjab, No. 3239, dated 9th October, 1880, and enclosures [Papers

No. 9].

Acting Secretary to Government, Bombay, No. 3041, dated 8th October, 1880, and enclosures [Papers No. 10].

Secretary for Birár to Resident, Hyderabad, No. 300, dated 6th October, 1880, and enclosures [Papers No. 11].

Officiating Secretary to Government, Bengal, No. 463T, dated 23rd October 1880, and enclosures [Papers No. 12].

Officiating Secretary to Chief Commissioner, British Burmah, No. 7571-15-5, dated 29th October, 1880, and enclosures [Papers No. 13].

Secretary, Chamber of Commerce, Bombay, dated 14th August, 1880, and enclosure [Papers No. 14]. Telegram from Government of Bombay, dated 7th December, 1880, [Papers No. 14].

will much simplify the measure by reducing the classes of petroleum to be dealt with to two, as in England, namely, dangerous petroleum and ordinary petroleum.

- 3. The flashing point of dangerous petroleum, as originally fixed in accordance with the recommendation of the Bengal Committee at 83° F. by Abel's test, has been objected to in many quarters as unnecessarily and inconveniently high. The Lieutenant-Governor of Bengal now proposes to reduce it to 78°; and on fully considering the papers submitted to us, we are prepared to reduce it even lower. There can be no doubt that the circumstance that the temperature of the air in most parts of India is throughout a great portion of the year higher than that which prevails in England, would, all other things being equal, make a petroleum flashing at a temperature between 70° and 80° F. more dangerous here than in England; but against this must be set off the greater openness and airiness of Indian buildings and the comparative absence of carpets, curtains and other such articles likely to catch fire; and, though at times serious accidents have occurred in this country, it can hardly be said that there is evidence to show that the danger is so serious as to warrant our extending the severe restrictions which the Bill imposes on dangerous petroleum to any petroleum flashing above the point, which has, after full consideration, been fixed upon in England and which has hitherto been adopted in Bengal. We have accordingly fixed the flashing point of dangerous petroleum at 73° F. by Abel's test equal to 100° F. by the old test.
 - 4. We have made some other amendments in the Bill, with a view to relaxing in certain particulars the restrictions it imposes; thus, in order to avoid the delay, to which ships bringing petroleum to our ports might have been subjected if the samples furnished had to be tested before the petroleum was

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landed, we have altered the wording of the Bill so as to allow of the petroleum being landed directly the samples are delivered. We think that the control which the Bill gives over the petroleum when landed will be amply sufficient to secure the object in view.

- 5. Again we have confined the provision of the Bill which requires petroleum to be kept in indelibly marked vessels, to dangerous petroleum, and we have reduced the maximum penalty for illegally importing, possessing or transporting petroleum from three months' imprisonment and one thousand rupees fine, to one month's imprisonment and five hundred rupees fine.
- 6. The power given by the Bill to extend the Act to other inflammable substances appears to be unnecessarily large, and we have therefore confined it to cases in which those substances are fluid.
- 7. The only other alterations we have made which are of sufficient importance to call for notice here are the insertion of a provision in section 7 of the Bill as now amended, empowering the Government to fix ports at which only petroleum may be imported, the addition of a clause to section 12 entitling a dealer, whose petroleum is tested under the Act, to a copy of the certificate of the result of the testing, free of charge, the insertion in section 16 of words providing that the tins or other vessels in which confiscated petroleum is contained may be confiscated with it, and the addition of a provision in section 18 requiring all rules made under the Act to be published for a month before they take effect.
- 8. The Bill, with its Statement of Objects and Reasons, has been published in English, in the local official Gazettes, except those of the Central Provinces and Assam. Its publication in the vernacular Gazettes has been reported by the Governments of Bengal and the North-Western Provinces and Oudh, and the Chief Commissioner of Mysore. It has met with considerable opposition on account of its stringency, but if the important mitigations of its provisions which we now recommend are approved by the Council, we think it may safely be passed without being again re-published. The measure having been now before the public for six months, it can hardly be said that timely notice of it has not been given to all concerned; but in order to guard against the possibility of hardship to holders or consignees of dangerous petroleum, we propose that it should not come into force till the 1st of July.

WHITLEY STOKES.
J. GIBBS.
B. W. COLVIN.
G. F. MEWBURN.

The 14th January 1881.

No. II.

THE PETROLEUM BILL, 1881.

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THE SCHEDULE.

No. II.

A Bill to regulate the importation, possession and transport of Petroleum and other fluids of a like nature.

WHEREAS it is expedient to regulate the importation, possession and Preamble. and other fluids of a like nature; It is hereby enacted as follows :-

Preliminary.

Committee's recommendations, para. 1.

Short title.

Commencement.

1. This Act may be called "The Petroleum Act, 1881"; and it shall come into force on the first day of July, 1881.

The provisions of this Act relating to dangerous petroleum, and the importation of petroleum, extend to the whole of British India. The rest of this Act extends only to such local areas as the Local Government may, from time to time, by notification in the official Gazette, direct.

2. The Indian Ports Act, 1875, section thirtyseven, and Bengal Act Repeal of enactments. No. III. of 1865 (to make better provision for the prevention of injury from fire in Ports, and to provide for the safe heeping of Inflammable Oils in Ports and places within the Provinces under the control of the Lieutenant-Governor of Bengal) are hereby repealed.

3. In this Act, unless there is something repugnant in the subject or Interpretation-clause. context,-

34 & 35 Vic.,c.105,s.3, " Petroleum" includes also the liquids commonly known by the names of rock oil, Rangoon oil, withadditions from Committee's report. Burma oil, kerosine, paraffine oil, mineral oil, petroline, gasoline, benzol, benzoline, benzine and any inflammable liquid that is made from petroleum, coal, schist, shale, peat or any other bituminous substance, or from any products of petroleum,

Committee's ecommendations, para. 3.

but it does not include any oil ordinarily used for lubricating purposes, and having its flashing point at or above two hundred and fifty degrees of Fahrenheit's thermometer.

Committee's ecommendations, para. 4

Explanation.—The flashing point of petroleum means the lowest temperature at which the petroleum yields a vapour which will furnish a momentary flash or flame when tested with the apparatus and in the manner described in the Schedule hereto annexed.

"Dangerous petroleum" means petroleum hav-" Dangerous petroleum." below seventy-three degrees of Fahrenheit's thermometer:

> "Import" means to bring into British India "Import." by sea or land:

and "importation" means the bringing into British India as aforesaid.

"Transport" means to remove from one place to another within British " Transport." India:

Dangerous Petroleum.

4. No quantity of dangerous petroleum exceeding forty gallons shall be imported or transport-Dangerous petroleum in quantities exceeding 40 ed, or kept by any one gallons.

person or on the same premises, except under, and in accordance with the conditions of, a license from the Local Government granted as next hereinafter provided.

Application for license to import, transport or possess such petroleum.

Every application for such a license shall be in writing, and shall de-

- (a) the quantity of such petroleum which it is desired to import, transport or possess, as the case may be;
- (b) the purpose for which the applicant believes that such petroleum will be used; and
- (c) that petroleum other than dangerous petroleum cannot be used for such purpose.

If the Local Government sees reason to believe that such petroleum will be used for such purpose, Power to grant license. and that no petroleum other than dangerous petroleum can be used for such purpose, it may grant such license for the importation, transport or possession (as the case may be) of such petroleum, absolutely or subject to such conditions as it thinks fit.

No quantity of dangerous petroleum equal to or less than forty gal-Dangerous petroleum in quantities not exceeding 40 lons shall be kept or transgallons. ported without a license:

Provided that nothing in this section shall apply 34 & 35 V in any case when the quantity of such petroleum kept by any one person or on the same premises, or transported, does not exceed three gallons, and such petroleum is placed in separate glass, earthenware or metal vessels, each of which contains not more than a pint and is securely stopped.

6. All dangerous Vessels containing dangerous petroleum to be marked, petroleum:

- (a) which is kept at any place after seven days from the date on which it is imported, or
 - (b) which is transported, or
- (c) which is sold or exposed for sale, shall be contained in vessels which shall bear an indelible mark or a label in conspicuous characters, stating the nature of the contents thereof.

Petroleum generally.

7. The Local Government may, from time to

time, makerules consistent Power to make rules as to the importation of with this Act to regulate the importation of petropetroleum, leum and in particular-

(a) for ascertaining the quantity and description of any petroleum on board a ship;

- (b) to provide for the delivery, by the master of a ship or the consignees of the cargo, of samples of petroleum before such petroleum is landed from such ship, and for the testing thereof;
- (c) to determine the ports at which only petroleum may be imported; and

c. 105, a.

34 & 35 V c. 105, s.

> Cf. Act 1878, 8.

Committ recomme tions, pa

(d) to regulate the time and mode of, and the precautions to be taken on, landing or transhipping any petroleum.

In this section-

"Ship" includes anything made for the conveyance by water of human "Ship." beings or property:

"Master" includes every person (except a Pilot or Harbour Master) having " Master." for the time being the charge or control of a ship.

8. No quantity of petroleum exceeding five hundred gallons, shall be Possession and transport kept by any one person or of petroleum. on the same premises or shall be transported except under and in accordance with the conditions of a license granted under this Act.

9. The Local Government may from time to time make rules consist-Power to make rules as to such possession and ent with this Act as to the granting of licenses to possess or transport

petroleum in cases where such licenses are by law required.

Such rules may provide for the following among other matters, that is to say-

in the case of licenses to possess petroleum-

- (a) the nature and situation of the premises for which they may be granted, and
- (b) the inspection of such premises and the testing of petroleum found thereon;

in the case of licenses to transport petroleum-

- (c) the manner in which the petroleum shall be packed, the mode of transit, and the route by which it is to be taken, and
- (d) the stoppage and inspection of it during transit;

in the case of both such licenses-

- (e) the authority by which the license may be granted;
 - (f) the fee to be charged for it;
 - (g) the quantity of petroleum it is to cover;
 - (h) the conditions which may be inserted in it;
- (i) the time during which it is to continue in force; and
 - (k) the renewal of the license.

10. Any officer specially authorized by name or by virtue of his office in

Power to inspect and this behalf by the Local require dealer samples. to sell Government may require any dealer in petroleum

to show him any place, and any of the vessels, in which any petroleum in his possession is stored or contained, to give him such assistance as he may require for examining the same, and to deliver to him samples of such petroleum on payment of the value of such samples.

11. When any such officer has, in exercise of the powers conferred by Notice to be given when officer proposes to test samsection ten, or by pur-

chase, obtained a sample of petroleum in the possession of a dealer, he may give a notice in writing

to such dealer informing him that he is about to test such sample or cause the same to be tested with the apparatus and in the manner described in the schedule hereto annexed, at a time and place to be fixed in such notice, and that such person or his Agent may be present at such testing.

12. On any such testing if it appears to the officer or other person so testing that the petro-leum from which such Certificate as to result of such testing.

sample has been taken is or is not dangerous petroleum, such officer or other person may certify such fact, and the certificate so given shall be receivable as evidence in any proceedings which may be taken under this Act against the dealer in whose possession such petroleum was found, and shall, until the contrary is proved, be evidence of the fact stated therein; and a certified copy of such certificate shall be given gratis to the dealer at his request.

Penalties.

13. Any person who, in contravention of this Act or of any rules made Penalty for illegal im-portation, &c., of petro-leum, hereunder, imports, possesses or transports any petroleum; and any per-

son who otherwise contravenes any such rules or any condition contained in a license granted hereunder, shall be punished with imprisonment for a term which may extend to one month, or with fine which may extend to five hundred rupees, or with both.

14. Any person keeping, transporting, selling 34 & 35 Vic., or exposing for sale petro-Penalty for keeping,

transporting or exposing for sale petroleum in conleum in vessels not marked or labelled as prescribtravention of section 6. ed by section six, shall be punished with fine which may extend to fifty rupees.

15. Any dealer in petroleum who refuses or 34 & 35 Vic., neglects to show to any c. 105, s. 12. Penalty for refusing to comply with section 10. officer authorized under

section ten any place, or any of the vessels, in which petroleum in his possession is stored or contained, or to give him such assistance as he may require for examining the same, or to give him samples of such petroleum on payment of the value of such samples, shall be punished with fine which may extend to two hundred rupees.

16. In any case in which an offence under section thirteen or section 1878, s. 11. Confiscation of petrofourteen has been committed, the convicting Magistrate may direct that,-

(a) the petroleum in respect of which the offence has been committed, or

(b) where the offender is importing or transporting or is in possession of any petroleum exceeding the quantity (if any) which he is permitted to import, transport or possess, as the case may be, the whole of the petroleum which he is importing, or transporting, or is in possession of,

shall, together with the tins or other vessels in which it is contained, be confiscated.

34 & 35 Vic., c. 105, s. 11.

Cf. Act I of

& 35 Vic.,

105, 8, 11,

Ibid.

17. The criminal jurisdiction under this Act shall, in the towns of Calcutta, Madras, and Bombay, be exercised by a Presidency Magistrate, and elsewhere by a Magistrate of the first class or (where specially empowered by the Local Government to try cases under this Act) a Magistrate of the second class.

Miscellaneous.

18. All rules made by the Local Government under this Act shall be published in the official Gazette, and shall, on the expiry of one month from the date of such publication, have the force of law:

Provided that no such rule shall be so published without the previous sanction of the Governor General in Council.

34 & 35 Vic., c. 105, s. 14.

Committee's

recommendations, para, 5, and 42 and 43

Vic., c. 47.

19. The Governor General in Council may, from time to time, by notification in the Gazette of India, apply the whole or any portion of this Act to any inflammable fluid other than petroleum, and may by such notification fix, in substitution for the quantities of petroleum fixed by sections four, five and eight, the quantities of such fluid to which these sections shall apply.

The Governor General in Council may by a like notification cancel any notification issued under this section.

THE SCHEDULE.

Specification explanatory of the Test Apparatus.

The following is a description of the details of the apparatus:—

The oil-cup consists of a cylindrical vessel 2" diameter, 2°_{10} " height (internal), with outward projecting rim $\frac{5}{10}$ " wide, $\frac{3}{3}$ " from the top and $1\frac{7}{3}$ " from the bottom of the cup. It is made of gun metal or brass (17 B. W. G.), tinned inside. A bracket, consisting of a short stout piece of wire, bent upwards and terminating in a point, is fixed to the inside of the cup to serve as a gauge. The distance of the point from the bottom of the cup is 11". The cup is provided with a close-fitting overlapping cover made of brass (22 B. W. G.) which carries the thermometer and test lamp. The latter is suspended from two supports from the side by means of trunnions, upon which it may be made to oscillate: it is provided with a spout the mouth of which is $\frac{1}{16}''$ in diameter. The socket which is to hold the thermometer is fixed at such an angle, and its length is so adjusted that the bulb of the thermometer, when inserted to its full depth, shall be 11" below the centre

The cover is provided with three square holes, one in the centre $\tau_0^{g''}$ by τ_0^{4} , and two smaller ones, $\frac{3}{10}$ by $\frac{2}{10}$, close to the sides and opposite each other. These three holes may be closed and uncovered by means of a slide moving in grooves, and having perforations corresponding to those on the lid.

In moving the slide so as to uncover the holes, the oscillating lamp is caught by a pin fixed in

the slide, and tilted in such a way as to bring the end of the spout just below the surface of the lid. Upon the slide being pushed back so as to cover the holes, the lamp returns to its original position.

Upon the cover, in front of, and in line with, the mouth of the lamp, is fixed a white bead the dimensions of which represent the size of the test flame to be used.

The bath or heated vessel consists of two flatbottomed copper cylinders (24 B. W. G.), an inner one of 3" diameter and 2½" height, and an outer one of 5½" diameter and 5¾" height; they are soldered to a circular copper plate (20 B. W. G.) perforated in the centre, which forms the top of the bath, in such a manner as to enclose the space between the two cylinders, but leaving access to the inner cylinder. The top of the bath projects both outwards and inwards about 3", that is, its diameter is about §" greater than that of the body of the bath, while the diameter of the circular opening in the centre is about the same amount less than that of the inner copper cylinder. To the inner projection of the top is fastened by six small screws, a flat ring of ebonite, the screws being sunk be-low the surface of the ebonite to avoid metallic contact between the bath and the oil cup. exact distance between the sides and bottom of the bath of the oil lamp is 11.". A split socket similar to that on the cover of the oil cup, but set at a right angle, allows a thermometer to be inserted into the space between the two cylinders. The bath is further provided with a funnel, an overflow pipe, and two loop handles.

The bath rests upon a cast-iron tripod stand, to the ring of which is attached a copper cylinder or jacket (24 B. W. G.), flanged at the top, and of such dimensions that the bath, while firmly resting on the iron ring, just touches with its projecting top the inward-turned flange. The diameter of this outer jacket is 6½". One of the three legs of the stand serves as support for the spirit lamp, attached to it by means of a small swing bracket. The distance of the wick holder from the bottom of the bath is 1".

Two thermometers are provided with the apparatus, the one for ascertaining the temperature of the bath, the other for determining the flashing point. The thermometer for ascertaining the temperature of the water has a long bulb and a space at the top. Its range is from about 90° to 190° Fahrenheit. The scale (in degrees of Fahrenheit) is marked on an ivory back fastened to the tube in the usual way; it is fitted with a metal collar fitting the socket, and the part of the tube below the scale should have a length of about 31" measured from the lower end of the scale to the end of the bulb. The thermometer for ascertaining the temperature of the oil is fitted with collar and ivory scale in a similar manner to the one described. It has a round bulb, a space at the top, and ranges from about 55° F. to 150° F.; it measures from end of ivory back to bulb 21".

Note.—A model apparatus is deposited at the office of the Chemical Examiner to Government at Calcutta.

Directions for applying the Test.

 The test apparatus is to be placed for use in a position where it is not exposed to currents of air or draughts.

of the lid.

2. The heating vessel or water-bath is filled by pouring water into the funnel until it begins to flow out at the spout of the vessel. The temperature of the water at the commencement of the test is to be 130° Fahrenheit, and this is attained in the first instance either by mixing hot and cold water in the bath, or in a vessel from which the bath is filled, until the thermometer which is provided for testing the temperature of the water gives the proper indication; or by heating the water with the spirit lamp (which is attached to the stand of the apparatus) until the required temperature is indicated.

If the water has been heated too highly, it is casily reduced to 130° by pouring in cold water little by little (to replace a portion of the warm water) until the thermometer gives the proper reading.

When a test has been completed, this waterbath is again raised to 130° by placing the lamp underneath, and the result is readily obtained while the petroleum cup is being emptied, cooled, and refilled with a fresh sample to be tested. The lamp is then turned on its swivel from under the apparatus, and the next test is proceeded with.

3. The test lamp is prepared for use by fitting it with a piece of flat plaited candlewick, and filling it with colza or rape oil up to the lower edge of the opening of the spout or wick tube. The lamp is trimmed so that when lighted it gives a flame of about 0.15 of an inch diameter, and this size of flame which is represented by the projecting white bead on the cover of the oil cup is readily maintained by simple manipulation from time to time with a small wire trimmer.

When gas is available it may be conveniently used in place of the little oil lamp, and for this purpose a test flame arrangement for use with gas may be substituted for the lamp.

4. The bath having been raised to the proper temperature, the oil to be tested is introduced into the petroleum cup, being poured in slowly until the level of the liquid just reaches the point of the gauge which is fixed in the cup. In warm

weather the temperature of the room in which the samples to be tested have been kept should be observed in the first instance, and if it exceeds 65°, the samples to be tested should be cooled down (to about 60°) by immersing the bottle containing them in cold water, or by any other convenient method. The lid of the cup, with the slide closed, is then put on, and the cup is put into the bath or heating vessel. The thermometer in the lid of the cup has been adjusted so as to have its bulb just immersed in the liquid, and its position is not under any circumstances to be altered. When the cup has been placed in the proper position, the scale of the thermometer faces the operator.

5. The test lamp is then placed in position upon the lid of the cup, the lead line or pendulum,* which has been fixed in a convenient position in front of the operator, is set in motion, and the rise of the thermometer in the petroleum cup is watched. When the temperature has reached about 66°, the operation of testing is to be commenced, the test flame being applied once for every rise of one degree in the following manner:—

The slide is slowly drawn open while the pendulum performs three oscillations, and is closed during the fourth oscillation.

Note.—If it is desired to employ the test apparatus to determine the flashing points of oils of very low volatility, the mode of proceeding is to be modified as follows:—

The air chamber which surrounds the cup is filled with cold water, to a depth of $1\frac{1}{2}$ inches, and the heating vessel or water-bath is filled as usual, but also with cold water. The lamp is then placed under the apparatus and kept there during the entire operation. If a very heavy oil is being dealt with, the operation may be commenced with water previously heated to 120° , instead of with cold water.

* This pendulum is two (2) feet in length from the point of suspension to the centre of gravity of the weight.

D. FITZPATRICK, Secretary to the Government of India.