

## MOTOR SPIRIT AND SUBSTITUTE LIQUID FUELS.

6° AND 7° GEO. VI., No. XLIV.

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No. 1 of 1943.

**AN ACT to provide for the regulation of the sale of motor spirit and substitute liquid fuels and for other purposes connected therewith.**

[Assented to 16th February, 1943.]

**BE** it enacted by the King's Most Excellent Majesty, by and with the advice and consent of the Legislative Council and Legislative Assembly of Western Australia, in this present Parliament assembled, and by the authority of the same, as follows:—

1. (1) This Act may be cited as the *Motor Spirit and Substitute Liquid Fuels Act, 1942.*

Short title and commencement. N.S.W., No. 31 of 1941, s. 1 (1) and s. 2 (1).

(2) This Act shall come into operation on a date to be fixed by proclamation.

2. This Act shall be construed subject to the Commonwealth of Australia Constitution Act and so as not to exceed the legislative power of the State, to the intent that, where any provision of this Act or of the regulations or the application thereof to any person or circumstance is held invalid, the remainder of this Act or of such regulations and the application of such provision to other persons or circumstances shall not be affected.

Construction. *ibid.* s. 2 (2).

Interpre-  
tation,  
*ibid.*, s. 3.

3. (1) In this Act, unless the context or subject-matter otherwise indicates or requires—

“Benzole” means a refined spirit manufactured in Western Australia and derived from coal, and consisting essentially of benzene, suitable for blending with motor spirit for use in internal combustion engines.

“Government Analyst” means the person for the time being holding the office of Government Mineralogist and Analyst under appointment by the Governor or the person so appointed to perform the duties of Government Mineralogist and Analyst.

*cf.* N.S.W.,  
No. 15 of  
1915, s. 6.

“Inflammable liquid” means liquid petroleum, kerosene, and any liquid or spirit derived wholly or in part from any petroleum, shale, schist, coal, peat, bitumen, or any other similar substance and which has a true flashing point of less than one hundred and fifty degrees fahrenheit; and any other liquid which the Governor by proclamation declares to be an inflammable liquid.

“License” means a license issued under this Act.

*cf.* N.S.W.,  
No. 15 of  
1915, s. 7  
(a).

“Mineral spirit” means any liquid or spirit derived wholly or in part from any petroleum, shale, schist, coal, peat, bitumen or any other similar substance which has a true flashing point of less than seventy-three degrees fahrenheit.

“Minister” means the Minister of the Crown from time to time charged with the administration of this Act.

“Motor spirit” means mineral spirit used or adopted or intended to be used for the propulsion of any motor vehicle, but does not include substitute liquid fuel.

The expression does not refer to or include motor spirit which is the subject of interstate trade or commerce within the meaning of section ninety-two of the Commonwealth Constitution while it is the subject of such trade or commerce, but refers to and includes only such motor spirit

as is for the time being part of the general mass of property in this State which is completely under the power and control of this State.

“Power alcohol” means anhydrous ethyl alcohol manufactured in Western Australia and methylated as prescribed by regulations made pursuant to subsection (4) of section fourteen of the Spirits Acts, 1906-1935, of the Parliament of the Commonwealth of Australia.

“Sell” includes barter or exchange, and offer or attempt to sell or send forward or deliver for sale and cause or suffer or allow to be sold or offered for sale.

“Substitute liquid fuel” means benzole and power alcohol produced in Western Australia by any person undertaking in Western Australia the production of benzole or power alcohol, and includes any other liquid suitable for blending with motor spirit for use in internal combustion engines which the Governor by proclamation declares to be a substitute liquid fuel.

“True flashing point” in relation to inflammable liquid and to mineral spirit means the true flashing point as defined in the Schedule to this Act when the spirit is tested in the manner set forth in the said Schedule, with such alterations and additions (if any) as are made in the same in pursuance of this Act.

cf. N.S.W.,  
No. 15 of  
1915, s. 8  
and Schedule.

(2) The Governor may by proclamation—

- (a) declare any liquid to be an inflammable liquid;
- (b) declare any liquid, which is manufactured or produced in Western Australia and which is suitable for blending with motor spirit for use in internal combustion engines to be a substitute liquid fuel; and
- (c) alter or add to the Schedule to this Act prescribing the manner of testing inflammable liquid or mineral spirit and the construction of test apparatus:

cf. N.S.W.,  
No. 15 of  
1915, s. 4  
(6).

Provided that the standard model of any apparatus made in pursuance of such proclamation deposited with the Government Analyst shall be so constructed as to give flash points corresponding to those given by the apparatus prescribed in the said Schedule.

Person  
selling motor  
spirit to be  
holder of  
license;  
N.S.W., No.  
31 of 1941,  
s. 4.

4. (1) Subject to this Act, from and after the expiration of one month after the commencement of this Act, no person shall in this State, either as principal or as agent, sell to any other person for delivery in this State any motor spirit which at the time of such sale is situate in this State unless he is the holder of a license issued under this Act:

Provided that any person who buys motor spirit for the purposes of sale from a person who holds a license under this Act shall be deemed to comply with the provisions of this section upon proof that the person from whom he buys such motor spirit is so licensed, and any such person shall, for the purposes of this Act and the regulations, be deemed to be a licensed person and the agent of the licensee accordingly.

(2) Any person who sells any motor spirit in contravention of the provisions of subsection (1) of this section shall be guilty of an offence.

Penalty—For a first offence, fifty pounds; for any subsequent offence, two hundred pounds, with a minimum penalty of twenty pounds.

Licenses.  
*ibid.* s. 5.

5. (1) Application for a license or for the renewal of a license under this Act shall be in the prescribed form, and shall contain such particulars as may be prescribed.

(2) Every such application shall be lodged with the Minister or with a person authorised in writing by the Minister to act on his behalf, and shall be accompanied by the prescribed fee.

(3) Every license shall be issued by the Minister or a person authorised in writing by the Minister to act on his behalf.

(4) All licenses required under this Act shall be applied for annually on or before the first day of July in each and every year and shall have effect for one year:

Provided that—

(i) where a license is applied for within fifteen days after the first day of July such license shall be deemed to have been applied for as from such first day of July, and where such license is applied for on a day more than fifteen days after the first day of July in any year, such license shall take effect as from the day when

the license is actually granted, and shall continue in force until the thirtieth day of June next ensuing and no longer;

- (ii) where application for any license is made in any year after the thirty-first day of December, the applicant shall be required to pay only one-half of the amount of the license fee prescribed for a full year's license.

(5) The Minister or the person authorised in writing by the Minister to act on his behalf may refuse to issue a license to any person who was previously the holder of a license under this Act but whose license has been cancelled.

(6) The Minister or the person authorised by the Minister as aforesaid may refuse to renew the license of any person who has committed any breach of or who has neglected or failed to comply with any of the requirements of this Act.

6. (1) If the Minister is satisfied that any holder of a license has failed to comply with the provisions of section eight of this Act, or is persistently acting in breach of any provision of this Act, he may give notice to such person of his intention to cancel the license of such person, giving his reasons for his decision.

Cancellation  
of license.  
*ibid.* s. 9.

(2) The decision of the Minister to cancel any license shall not be carried into effect until the time for lodging an appeal against his decision has expired, nor while any appeal against such decision is pending.

7. (1) Where the Minister gives notice under section six of this Act of his intention to cancel a license, or where the Minister or the person authorised in writing by the Minister to act on his behalf refuses, pursuant to subsection (5) or subsection (6) of section five of this Act to issue or renew a license, the holder of the license or the person making the application, as the case may be, may appeal, in accordance with the regulations, to the local court exercising jurisdiction in the district within which the place of business of such holder or person is situated.

Appeal  
against can-  
cellation of  
license.  
*ibid.* s. 10.

(2) Every such appeal shall be in the nature of a rehearing.

(3) Notice of appeal in the prescribed form shall be given by the appellant to the Minister or to the person authorised by the Minister as aforesaid within thirty days after the receipt by him of the notice of intention to cancel the license or of the notification to him that the issue or renewal of the license has been refused.

(4) The decision of the local court upon any appeal under this section shall be final and conclusive and shall be binding upon the appellant or the Minister or the person authorised by the Minister as aforesaid, as the case may be.

Holder of  
license to  
purchase sub-  
stitute liquid  
fuel in pre-  
scribed  
quantities.  
*ibid.* s. 6.

8. (1) The holder of every license shall, during the currency thereof, purchase and pay at the prescribed price for a quantity of each class or type of substitute liquid fuel not less than a quantity equal to a prescribed number of gallons for every one hundred gallons of motor spirit sold by him during the period of such currency.

(2) The prescribed price shall be the price fixed as provided for in section nine of this Act.

(3) The regulations may prescribe different quantities in respect of different classes or types of substitute liquid fuel.

(4) Provided that—

(a) in calculating for the purposes of this section the number of gallons of motor spirit sold by any holder of a license—

(i) account shall not be taken of sales of motor spirit produced in Australia from indigenous shale; and

(ii) subject to paragraph (i) of this proviso there shall be taken into account only those sales in respect of which a license is required to be held by him under section four of this Act;

(b) in the case of any sale as agent by any holder of a license, the provisions of this section shall be deemed to have been complied with as regards such sale upon proof that the principal is the holder of a license and has duly complied with the provisions of this section;

(e) in the case of any sale of motor spirit by a non-licensed person which has been purchased by him from a licensed person, such non-licensed person shall be deemed to be the agent of the licensed person in respect of such sale.

(5) If the holder of a license commits any breach of or neglects or fails to comply with the requirements of subsection (1) of this section he shall be guilty of an offence.

Penalty—One hundred pounds.

(6) It shall be a sufficient defence to any proceedings under this section if the holder of the license proves—

(a) that he was unable to obtain any substitute liquid fuel of the class or type referred to in the charge; or

(b) that he was able to obtain only a specified quantity of substitute liquid fuel of the class or type referred to in the charge, and that he purchased such specified quantity of that substitute liquid fuel.

9. (1) Where a price for any class or type of substitute liquid fuel is fixed under and in accordance with regulations (in this section hereinafter referred to as the Commonwealth Regulations) made under the National Security Act, 1939-1940, of the Parliament of the Commonwealth of Australia, the prescribed price for that class or type of substitute liquid fuel shall be the price for the time being so fixed.

Prescribed  
price.  
*ibid.* s. 7.

(2) Subject to subsection one of this section, the following provisions shall apply to and in respect of the fixation of the prescribed price for benzole produced in this State by a person producing benzole from coal in this State:—

(A) (i) For the purposes of this Act there shall be a committee, to be known as the Substitute Liquid Fuel Prices Committee.

(ii) The committee shall consist of a chairman and two other members, all appointed by the Governor.

(iii) The chairman and members of the committee shall hold office during the pleasure of the Governor.

- (iv) Every appointment and every termination of an appointment of the chairman or of a member of the committee shall be notified in the *Government Gazette*.
  - (v) At any meeting of the committee the chairman, if present, and, in his absence, the member who is senior in appointment, shall preside.
  - (vi) The chairman, and any member of the committee, or the two members other than the chairman shall form a quorum thereof.
  - (vii) The chairman and every member of the committee shall have a deliberative vote on every question before the committee, and, in the event of the votes for and against any proposal being equal, the chairman of the meeting shall have a casting vote.
  - (viii) The chairman and members of the committee may, out of moneys provided by Parliament for the purpose, be paid such fees, allowances, and expenses as may be prescribed.
  - (ix) The committee shall exercise the functions conferred upon it by this Act or by regulations.
  - (x) So far as may be necessary or expedient, the committee shall exercise its said functions in co-operation with or after consultation with such authorities of the Commonwealth of Australia and of the other States as may be prescribed.
  - (xi) The committee may conduct any inquiry which it thinks will assist it in making any recommendation for the purposes of this Act, and in relation to and for the purposes of such inquiry shall have all the powers of a Royal Commission under the Royal Commissioners' Powers Act, 1902.
- (B) The prescribed price for benzole produced by any person aforesaid shall be fixed from time to time by the Governor by proclamation on the recommendation of the Substitute Liquid Fuel Prices Committee appointed as hereinbefore provided; and upon publica-

tion of such proclamation in the *Government Gazette*, the price of benzole fixed thereby shall for the time being be the prescribed price for such benzole:

Provided that the Governor may at any time and from time to time on the recommendation of the Substitute Liquid Fuel Prices Committee revoke or vary or amend any proclamation issued under this paragraph by a subsequent proclamation.

(C) Where a price for benzole produced in this State as aforesaid has been fixed under and in accordance with the Commonwealth Regulations, but the control of the price of such benzole is terminated either by reason of the expiration of the National Security Act, 1939-1940, aforesaid or for any other cause—

(i) the price in force under the Commonwealth Regulations immediately before the control was so terminated shall be the prescribed price until a price is fixed in accordance with the foregoing provisions of this subsection;

(ii) in making any recommendation of the price to be fixed for such benzole by the Governor after such control is terminated, and before the first day of January, one thousand nine hundred and fifty-seven, the Substitute Liquid Fuel Prices Committee shall recommend the variation of the prescribed price existing immediately before the making of its recommendation to the extent necessary to take into account the following matters only—

(a) any increase or decrease in the amounts payable by the persons producing benzole in respect of—

(i) labour and materials used in the recovery, rectification, and distribution of benzole, and the repair and maintenance of the plant used in connection therewith;

(ii) excise duty, Commonwealth and State taxation, and local government rates, and

(b) where the persons producing benzole are also producing gas or other products from coal, any increase or decrease in the cost of producing such gas or other products which is attributable to the recovery of benzole.

(3) (a) In any case to which the provisions of subsection one or subsection two of this section do not apply, the prescribed price shall be the price fixed by or under the regulations made under this Act.

(b) The regulations may prescribe the basis or bases or method of determination as to what shall constitute the prescribed price.

Licensee to sell substitute liquid fuel as motor spirit. *ibid.* s. 8.

10. (1) The holder of a license who purchases substitute liquid fuel pursuant to this Act shall sell such substitute liquid fuel as motor spirit and not otherwise.

(2) If the holder of a license commits any breach of or fails to comply with the requirements of subsection (1) of this section, he shall be guilty of an offence.

Penalty—two hundred pounds.

Inspection of books, etc. *ibid.* s. 11.

11. (1) Any person authorised in writing in that behalf by the Minister may at any time, and from time to time, inspect any books, accounts, registers, documents or writings in the custody or control of a holder of a license, and may take notes, copies or extracts thereof or therefrom.

(2) Any holder of a license or agent or clerk or servant of such holder who—

(a) neglects, obstructs, or refuses to produce for inspection to any person so authorised as aforesaid any books, accounts, registers, documents or writings as aforesaid; or

(b) obstructs or refuses to allow any such person so authorised as aforesaid to take notes, copies or extracts of or from any books, accounts, registers, documents or writings as aforesaid; or

(c) refuses to answer any question of the person so authorised as aforesaid in relation to any books, accounts, registers, documents or writings as aforesaid, or wilfully gives any untruthful answer to such question—

shall be guilty of an offence.

Penalty—One hundred pounds.

12. (1) Every person who either as principal or agent sells to any other person for delivery in this State any motor spirit which at the time of such sale is situated in this State shall keep proper books and accounts, in which shall be recorded every such sale, and set forth with full particulars and in a manner that can be readily understood or as may be prescribed.

Person selling motor spirit to keep proper books  
*ibid.* s. 12

(2) The Minister or any person authorised in writing in that behalf by the Minister may require any such person to alter his method of keeping his books, if, in the opinion of the Minister or such authorised person, they are not kept in a satisfactory manner.

(3) Any person neglecting, refusing or failing to comply with the provisions of subsection (1) of this section, or to comply with the requisition of the Minister or authorised person under subsection (2) of this section, shall be guilty of an offence.

Penalty—One hundred pounds.

13. (1) The Minister or the person authorised in writing by the Minister to act on his behalf shall enter in a register, to be kept for the purpose, a record of all licenses issued under this Act, in which shall be entered particulars of the date of the grant, renewal, or cancellation of each license and such other particulars (if any) as may be prescribed.

Record of licenses.  
*ibid.* s. 13.

(2) A copy of any entry in such register, purporting to be signed by the Minister or the person authorised by the Minister as aforesaid, shall be *prima facie* evidence of the truth of the matters stated in such copy.

14. (1) Every holder of a license shall have a registered office in this State.

Registered office.  
*ibid.* s. 14.

(2) All writs, summonses, notices, and other documents required or authorised to be served on or given to the holder of a license shall be deemed to be duly served or given if left for him at his registered office.

(3) The address specified in the application for a license as the address at which the applicant proposes to carry on business shall, upon the grant of the license, be deemed to be the registered office of the holder of the license.

(4) Notice of any change in the situation of the registered office shall be lodged by the holder of the license with the Minister, or the person authorised in writing by the Minister to act on his behalf, within the prescribed time.

(5) If any holder of a license carries on business without complying with the requirements of this section, he shall be guilty of an offence.

Penalty—Fifty pounds, and, in addition, a penalty of five pounds for every day or part of a day during which the offence continues.

15. (1) Any person authorised in writing in that behalf by the Minister, may, at any time, and from time to time, without payment for the same, take a sample of any substance considered to be an inflammable liquid or a mineral spirit found in the possession of the holder of any license under this Act, or of any other person, and intended for sale as motor spirit for the purpose of examining and testing the same.

(2) When any sample is taken as aforesaid, the person taking the same shall—

- (a) divide the sample into three approximately equal parts;
- (b) place each such part in a separate container, and seal or fasten each such container;
- (c) place on each such container a label stating, so far as is known, the name of the occupier of the place where the sample was taken;
- (d) deliver one of the parts to the person in charge or apparently in charge of the place where the sample was taken;
- (e) retain one of such parts for future comparison; and
- (f) forward the other part for analysis by an approved analyst.

(3) The Minister may approve of any persons to be approved analysts for the purposes of this section.

(4) In any proceedings taken in respect of an offence alleged in relation to any inflammable liquid or mineral spirit, a sample of which has been taken as aforesaid, a certificate in writing under the hand of the approved analyst who has analysed the same, setting forth the result of his analysis, shall be admissible in evidence, and the statement on such certificate that such analyst is an approved analyst within the meaning of the section, shall be *prima facie* evidence that such analyst is such an approved analyst.

(5) If in any such proceedings aforesaid the defendant disputes the analysis of the approved analyst to whom a part of the sample has been forwarded, as provided for in paragraph (f) of subsection (2) of this section, the third part of such sample shall be forwarded to the Government Analyst for analysis, and his analysis or an analysis made by an officer on the staff of the Government Analyst shall be final and conclusive.

16. (1) Any person who commits a breach of or neglects or contravenes or fails to comply with any of the provisions of this Act shall be guilty of an offence. General  
penalty.  
*ibid.* s. 15-  
(1).

(2) Any person guilty of an offence shall, where no other penalty is expressly provided, be liable on conviction to a penalty not exceeding two hundred pounds.

17. Where any act which by this Act is declared to be an offence, and which is committed by a body corporate, is proved to have been committed with the consent or approval of any director, manager, secretary, or other officer of the body corporate, he, as well as the body corporate, shall be deemed to be guilty of the offence, and he may be proceeded against and punished accordingly. Liability in  
case of cor-  
porations.  
*ibid.* s. 15  
(2).

18. Any penalty imposed by this Act or the regulations in respect of any offence against this Act or the regulations may be recovered summarily in a court of petty sessions holden before a stipendiary or resident magistrate under the Justices Act, 1902-1936. Recovery of  
penalties.  
*ibid.* s. 16  
(1).

19. In any proceedings under or for the purposes of this Act or the regulations.— Evidence  
*ibid.* s. 16  
(2).

(a) the averment of the prosecutor that the defendant was not, at the time of the commission of the alleged offence, the holder of a license shall

- be deemed to be proved in the absence of proof to the contrary;
- (b) every entry in any book kept by or belonging to any person or found on the premises of any person shall be deemed, unless the contrary is shown, to have been made by or with the authority of such person;
  - (c) the person named as Government Analyst, or as an officer on the staff of the Government Analyst, in any complaint, certificate or other document tendered as evidence, shall be deemed to be the Government Analyst or officer, aforesaid, in the absence of proof to the contrary;
  - (d) the certificate of the Government Analyst or officer aforesaid with respect to any article analysed or tested in pursuance of this Act shall be evidence of the facts therein stated, unless the defendant or person charged gives notice in writing to the plaintiff, or prosecutor, at least twenty-four hours before the time fixed for the hearing in such proceedings, that he requires the Government Analyst or the officer aforesaid to be called and give evidence in person.

Testing of  
mineral  
spirit.  
N.S.W., No.  
15 of 1915,  
ss. 25 to 28.

20. (1) A standard model of the apparatus for testing inflammable liquid and mineral spirit to determine the true flashing point thereof as prescribed by this Act shall be deposited with and be kept in the office of the Government Analyst.

(2) The Governor may by a proclamation issued under paragraph (c) of subsection (2) of section three of this Act, declare that any new model shall be the standard model, and that any then existing model shall cease to be the standard model.

(3) Apparatus constructed in accordance with the Schedule to this Act may from time to time be submitted to the Government Analyst aforesaid for the purpose of being compared with the standard model and verified.

(4) The Government Analyst may, on receipt of the prescribed fees, and subject to the prescribed conditions—

- (a) stamp such apparatus, if found to be accurate, with a mark, date and number;

(b) stamp such apparatus, if found to be inaccurate, with a statement showing the error in such apparatus, and with a mark, date and number.

(5) Any test made by an apparatus shall be deemed inaccurate, unless such apparatus has been compared with the standard model, found by the Government Analyst to be accurate, and stamped as aforesaid within five years from the date of such test being made.

21. (1) The Governor may make regulations, not inconsistent with this Act, prescribing all matters which by this Act are required or permitted to be prescribed or which are necessary or convenient to be prescribed for carrying out or giving effect to this Act.

Regulations.  
N.S.W., No.  
No. 31 of  
1941, s. 17.

(2) Without prejudice to the generality of subsection (1) of this section, the Governor may make regulations for or with respect to—

- (a) applications for licenses, and the form and manner thereof, and the form, terms, provisions, and conditions of the license and the fee payable therefor;
- (b) the functions of the Substitute Liquid Fuel Prices Committee, and the fees, allowances and expenses to be payable to the chairman and the members thereof;
- (c) appeals against refusal of the issue or renewal of licenses, or the cancellation of licenses, including court fees and costs of appeal;
- (d) the mode of proof of purchase by a person of motor spirit from a licensee, including any prescribed certificate or invoice to be furnished by licensees or other persons to persons buying motor spirit for sale;
- (e) forms of returns and of statistics to be made and furnished to the Minister, and the contents thereof, and the persons (whether licensees or not) by whom the same shall be made, and the time and mode of making and furnishing the same;
- (f) the form of any notice, order, or other document under this Act;
- (g) the manner of service of any notice, order or other document under this Act, and the effect of service thereof in the prescribed manner;

(h) the fees payable and the conditions to be imposed in relation to verification of the accuracy of apparatus for testing inflammable liquid and mineral spirit.

(3) The regulations may impose a penalty not exceeding fifty pounds for any breach of the regulations.

#### SCHEDULE.

##### Section 3.

N.B.—In this Schedule the expression “liquid” means any liquid to be tested for the purpose of ascertaining its character as inflammable liquid or mineral spirit; degrees of temperature are according to Fahrenheit’s thermometer.

##### I.—*Nature of the Test Apparatus.*

The apparatus consists of the following parts:—

1. A liquid cup.
2. A cover, with slide, test lamp for liquid, or test-flame arrangement for use with gas, and clockwork arrangement for opening and closing the holes in the cover, and for dipping the test-flame.
3. A water bath or heating vessel.
4. A tripod (with jacket), and spirit lamp or gas arrangement for heating the water bath.
5. A round bulb thermometer for testing the temperature of the liquid, with scale ranging from 55 degrees to 160 degrees.
6. A long bulb thermometer for testing the temperature of the water, with scale ranging from 90 degrees to 220 degrees.
7. A mercurial or aneroid barometer.

The liquid cup is a cylindrical flat-bottomed vessel, 2 inches in diameter, 2  $\frac{2}{10}$  inches in height (internal), made of gunmetal or brass (17 B.W.G.), and tinned or silvered inside.

It is provided with a projecting rim,  $\frac{5}{10}$  inch wide,  $\frac{3}{8}$  inch from the top, and  $\frac{17}{8}$  inch from the bottom of the cup, on which it rests when inserted in the water bath.

A gauge is fixed on the inside of the cup to regulate the height to which it is to be filled with the sample under examination.

The distance of the point from the bottom of the cup is  $1\frac{1}{2}$  inch.

The cup is provided with a close-fitting overlapping cover, made of brass (22 B.W.G.) which carries the thermometer, the test-lamp, or test-flame arrangement, and the adjuncts thereto.

The test-lamp, which has a spout, the mouth of which is  $\frac{1}{16}$  inch in diameter, or test-flame arrangement, is suspended upon two supports by means of trunnions, which allow it to be easily inclined to a particular angle and restored to its original position.

The socket in the cover, which is to hold a round bulb thermometer for indicating the temperature of the liquid during the testing operation, is so adjusted that the bulb of the latter is always inserted to distance of  $1\frac{1}{2}$  inch below the centre of the lid.





The liquid cup is to be cooled, when necessary, to a temperature not exceeding—

- (a) 60 degrees, when a flashing point at or about 73 degrees is being observed;
- (b) 85 degrees, when a flashing point at or about 100 degrees is being observed;
- (c) 135 degrees, when a flashing point at or about 150 degrees is being observed,

by placing it bottom downwards in water at a suitable temperature.

The liquid cup is now to be rapidly wiped dry, placed on a level surface in a good light, and the liquid to be tested is poured in without splashing until its surface is level with the point of the gauge which is fitted in the cup.

The lid is then put on the cup at once and pressed down so that its edge rests on the rim of the cup.

#### IV.—*Application of the Test.*

1. The water bath, with the thermometer in position, is placed in some locality where it is not exposed to currents of air, and where the light is sufficiently subdued to admit of the size of the entire test flame being compared with that of the bead on the cover.

The cup is carefully lifted, without shaking it, and placed in the bath, the test lamp is lighted, and the clockwork wound up by turning the key.

The thermometer in the liquid cup is now watched, and the clockwork is set in motion by pressing the trigger, when the temperature has reached—

- (a) 63 degrees, when a flashing point at or about 73 degrees is being observed;
- (b) 90 degrees, when a flashing point at or about 100 degrees is being observed;
- (c) 140 degrees, when a flashing point at or about 150 degrees is being observed.

If no flash takes place the clockwork is at once rewound and the trigger pressed at the next higher degree, and so on at every degree rise of temperature until the flash occurs.

2. When a flashing point at or above 115 degrees is being observed the air chamber is to be filled to a depth of  $1\frac{1}{2}$  inches with cold water before the liquid cup containing the liquid to be tested is placed in position.

3. The temperature at which a flash occurs, if not within 8 degrees of the temperature at which the testing was commenced, is the observed flashing point of the liquid, and by correction of the observed flashing point for atmospheric pressure as hereinafter described, the true flashing point is obtained.

4. If, however, the flash takes place at any temperature within 8 degrees of the temperature at which the testing was commenced, the test is to be rejected, and the whole operation of testing is to be repeated with a fresh portion of the sample—the testing, however, to begin at 10 degrees lower than the temperature at which the flash has been previously obtained.

If necessary, this procedure shall be repeated with fresh portions of liquid until a flash has been obtained at a temperature not within 8 degrees of the temperature at which the testing was commenced.

5. The temperature at which the last-mentioned flash occurs is the observed flashing point of the liquid, and by correction of the observed flashing point for atmospheric pressure, as hereinafter described, the true flashing point is obtained.

6. In repeating a test a fresh sample of liquid must always be used, the tested sample being thrown away, and the cup must be wiped dry from any adhering liquid, and cooled, as already described, before receiving the fresh sample.

7. If in any case no flash has occurred when a temperature has been reached which is not within 8 degrees of the temperature at which the testing was commenced, and which, after correction for atmospheric pressure, is not less than 73 degrees, and the tests are not required to be continued, the liquid shall be deemed to have a true flashing point of not less than 73 degrees.

8. If no flash has occurred when a temperature has been reached which is not within 8 degrees of the temperature at which the testing was commenced, and which, after correction for atmospheric pressure, is not less than 100 degrees, and the tests are not required to be continued, the liquid shall be deemed to have a true flashing point of not less than 100 degrees.

9. In the same manner, if no flash has occurred when a temperature has been reached which is not within 8 degrees of the temperature at which the testing was commenced, and which, after correction for atmospheric pressure, is not less than 150 degrees, and the tests are not required to be continued, the liquid shall be deemed to have a true flashing point of not less than 150 degrees.

#### V.—*Correction for Atmospheric Pressure.*

As the flashing point of a liquid is influenced by changes in atmospheric pressure to an average of 1.6 degrees for every inch of the barometer, a correction of the observed flashing point is necessary whenever the barometer does not stand at 30 inches. This correction is to be made in the following manner:—

If the barometer stands at less than 30 inches (the normal height of the barometer), add to the observed flashing point 1.6 times the difference (measured in inches) between the actual and normal barometer.

If the barometer stands above 30 inches, deduct from the observed flashing point 1.6 times the difference between the actual and normal barometer.

The nearest whole number to the result of this correction is to be taken as the corrected flashing point, and if the result is exactly midway between two whole numbers the higher whole number is to be taken.

For example: Suppose a liquid has an observed flashing point of 72 degrees, the barometer being 27.1 inches, then the difference between 30.0 inches and 27.1 inches is 2.9 inches.

This result multiplied by 1.6 is 4.64 which has to be added to 72 making 76.64.

