

THE  
CHEMISTRY OF THE PHARMACOPŒIA  
ACCORDING TO MODERN THEORIES.

BY JOHN CARGILL BROUGH.

VI.

SULPHIDES AND SULPHYDRATES.

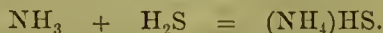
SULPHUR in its chemical relations is the representative of oxygen. It combines with hydrogen and the metals to form compounds analogous to the oxides and hydrates.

HYDRIC SULPHIDE,  $H_2S$ . (Sulphydric acid, hydrosulphuric acid; *Sulphuretted hydrogen*, *HS*, B. P.) This gas is much employed in chemical analysis, and is on this account placed in the Appendix of the Pharmacopœia. It may be formed by burning sulphur vapour in hydrogen gas, or hydrogen gas in sulphur vapour, precisely as its analogue, water,  $H_2O$ , is produced under similar circumstances from oxygen and hydrogen. In the laboratory, it is ordinarily prepared by the action of dilute sulphuric acid upon ferrous sulphide:

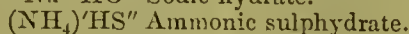


According to this equation, the bivalent atom of iron is transferred to the molecule of sulphuric acid in exchange for the two atoms of hydrogen which combine with the bivalent atom of sulphur ( $S'' = 32$ ).

AMMONIC SULPHYDRATE.  $(NH_4)HS$ . (Sulphydrate or hydrosulphate of ammonium; *Hydrosulphuret of ammonia*,  $NH_4S$ , *HS*, B. P.) A solution of this compound is one of the test solutions of the Pharmacopœia, and is prepared by passing sulphuretted hydrogen into aqueous ammonia as long as the gas continues to be absorbed:



Ammonic sulphydrate is a combination of ammonia and sulphuretted hydrogen gases, in equal volumes. Viewed as a compound containing the quasi-metal ammonium,  $NH_4$ , it is directly comparable to sodic hydrate:



FERROUS SULPHIDE,  $FeS$ . (Sulphuret of iron,  $FeS$ , B. P.) This compound is mentioned in the Appendix as an article employed in analysis. It is the sulphur representative of ferrous oxide,  $Fe''O$ .

ANTIMONIOUS SULPHIDE,  $Sb_2S_3$ . (Trisulphide of antimony; *Tersulphuret of antimony*,  $SbS_3$ , B. P.) The "prepared sulphuret of antimony" of the Appendix, and the "*Antimonium sulphuratum*" of the *Materia Medica* are forms of this compound more or less pure. It is the analogue of antimonious oxide,  $Sb_2O_3$ .

POTASSIC TRISULPHIDE,  $K_2S_3$ . (Tersulphuret of potassium,  $KS_3$ , B. P.) This compound is the chief constituent of the preparation called *Potassa sulphurata*. It contains three times as much sulphur as is required to saturate the metal, for the normal sulphide of potassium has the formula  $K_2S''$ , corresponding to that of anhydrous oxide of potassium,  $K_2O''$ .

OXYGEN-ACIDS AND SALTS.

According to the modern theory, *acids* are hydrogenised compounds, which readily part with some or all of their hydrogen, in exchange for basylous metals or radicles; and *salts* are the compounds obtainable from acids by the substitution of such metals or radicles for hydrogen. Thus,  $HCl$ ,  $HNO_3$ ,  $H_2SO_4$ , and  $H_3PO_4$  are acids, while  $AgCl$ ,  $(NH_4)NO_3$ ,  $Zn''SO_4$ , and  $Na_3PO_4$  are salts. As the hydrogen of an acid represents the basylous constituent of a salt, acids may be succinctly and accurately defined as *salts of hydrogen*.

The oxygen-acids resemble the basylous hydrates in molecular constitution, and may be regarded as derivatives of water. Thus, nitric acid,  $HNO_3$ , is formed by substituting the univalent radicle  $(NO_2)$  for one of the atoms of hydrogen in the typical molecule  $H_2O$ ; sulphuric acid,  $H_2SO_4$ , by sub-

stituting the bivalent radicle  $(SO_2)''$  for two hydrogen atoms in the double molecule  $H_2O_2$ ; and phosphoric acid,  $H_3PO_4$ , by substituting the trivalent radicle  $(PO)'''$  for three hydrogen atoms in the triple water molecule,  $H_3O_3$ .

Certain oxides called *anhydrides* or *anhydrous acids* are related to the true acids just as the anhydrous metallic oxides are related to the metallic hydrates. These bodies are formed when the whole of the hydrogen in the type is replaced by acid radicles. Thus, in nitric anhydride,  $N_2O_5$ , each hydrogen atom of the type  $H_2O$  is replaced by  $(NO_2)$ ; in sulphuric anhydride,  $SO_3$ , the two hydrogen atoms of the type  $H_2O$  are replaced by the bivalent group  $(SO_2)''$ ; and in phosphoric anhydride,  $P_2O_5$ , the six hydrogen atoms of the triple type  $H_3O_3$  are replaced by two proportions of the trivalent radicle  $(PO)'''$ .

When oxygen-acids, salts and anhydrides are represented by the modern substitutive formulæ, as in the following table, their mutual relations are obvious:

Types.	Acids.	Salts.	Anhydrides.
$H_2O$	$(NO_2)'O$	$(NO_2)'O$	$(NO_2)'O$
$H$	$H$	$Na$	$(NO_2)'O$
$H_2O_2$	$(SO_2)''O_2$	$(SO_2)''O_2$	$(SO_2)''O_2$ or $2 [(SO_2)''O]$
$H_2$	$H_2$	$Na_2$	$(SO_2)''O_2$
$H_3O_3$	$(PO)'''O_3$	$(PO)'''O_3$	$(PO)'''O_3$
$H_3$	$H_3$	$Na_3$	$(PO)'''O_3$

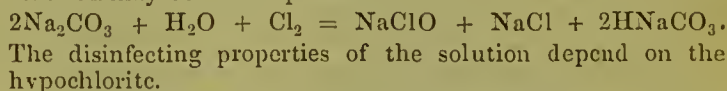
Acids like  $HNO_3$  in which only one atom of hydrogen can be replaced by metal are termed *monobasic*; those like  $H_2SO_4$  with two replaceable hydrogen atoms are termed *dibasic*; and those like  $H_3PO_4$  with three replaceable hydrogen atoms are said to be *tribasic*.

The monobasic acids of the Pharmacopœia with the salts derivable from them may be grouped under the following heads: Hypochlorites, Chlorates, Iodates, Nitrites, Nitrates, Permanganates, Acetates, Benzoates, and Valerianates.

*Hypochlorites.*

Hypochlorous acid or Hydric hypochlorite,  $HClO$ , may be formed by the direct oxidation of hydrochloric acid  $HCl$ . It is not an officinal article, but is represented in the Pharmacopœia by sodic and calcic salts.

SODIC HYPOCHLORITE,  $NaClO$ . (Hypochlorite of sodium; *Hypochlorite of soda*,  $NaO, ClO$ , B. P.) This salt is the principal constituent of the useful disinfecting solution, *Liquor sodæ chloratæ*. The solution contains hypochlorite, chloride, and acid carbonate of sodium, and is prepared by passing chlorine gas into a solution of sodic carbonate. The reaction may be thus represented:

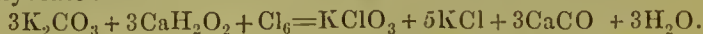


CALCIC HYPOCHLORITE,  $Ca''(ClO)_2$ . (Hypochlorite of calcium; *Hypochlorite of lime*,  $CaO, ClO$ , B. P.) This salt is derived from two molecules of hypochlorous acid  $H_2(ClO)_2$  by the substitution of the bivalent atom of calcium for the two hydrogen atoms. It is the principal constituent of the substance commonly called "chloride of lime" and described in the Pharmacopœia under the name of *Calx Chloratæ*. The other constituents of this popular disinfectant are chloride and hydrate of calcium.

*Chlorates.*

Chloric acid or Hydric chlorate  $HClO_3$  is represented in the Pharmacopœia by its most important derivative, namely,

POTASSIC CHLORATE,  $KClO_3$ . (Chlorate of potassium; *Potassæ chloras*,  $KO, ClO_3$ , B. P.) This is prepared according to the directions of the Pharmacopœia by the action of chlorine gas on a mixture of potassic carbonate and calcic hydrate:



The secondary products of the reaction are potassic chloride, insoluble calcic carbonate and water. By the action of boiling water the potassic salts are separated from the carbonate; and as the chlorate is but slightly soluble in cold water it crystallises out while the chloride remains in solution.

*Iodates.*

Iodic acid or Hydric iodate,  $HIO_3$ , the analogue of chloric acid, is represented by

POTASSIC IODATE,  $KIO_3$ . (Iodate of potassium; *Iodate of Potash*,  $KO, IO_3$ , B. P.) This salt is prepared by digesting

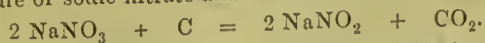
a mixture of iodine and potassic chlorate with acidulated water. The reaction is an example of direct substitution :



A solution of potassic iodate is one of the officinal tests.

#### Nitrites.

Nitrous acid or hydric nitrate,  $\text{HNO}_2$ , is represented by SODIC NITRATE,  $\text{NaNO}_2$ . (Nitrite of sodium; *Nitrite of soda*,  $\text{NaO}, \text{NO}_2$ , B. P.) This salt is employed in the preparation of spirit of nitrous ether. It is obtained by igniting a mixture of sodic nitrate and charcoal :



The nitrate is deoxidised, and carbonic anhydride is given off. The action, however, does not stop here, and the product invariably contains a large proportion of sodic carbonate.

NITRIC ACID or HYDRIC NITRATE,  $\text{HNO}_3$ . According to the old system of notation, this acid would be represented by the formula,  $\text{HO}, \text{NO}_5$ . The officinal acid of specific gravity 1.5 (*Acidum nitricum*) is represented as a definite hydrate by the formula  $3\text{HO}, 2\text{NO}_5$ , which corresponds to the modern expression  $4\text{HNO}_3 \cdot \text{H}_2\text{O}$ . Nitric acid is obtained by distilling potassic nitrate with sulphuric acid :



The potassic nitrate gives up potassium in exchange for hydrogen, and is thus converted into hydric nitrate, while the hydric sulphate or sulphuric acid is converted into the acid salt called hypopotassic sulphate.

As the molecule of nitric acid contains only one replaceable atom of hydrogen, the normal metallic nitrates are represented by the general formulæ,  $\text{MNO}_3$ ,  $\text{M}''(\text{NO}_3)_2$  and  $\text{M}'''(\text{NO}_3)_3$ , in which the symbols M, M'', and M''', denote respectively a univalent, bivalent and trivalent metal.

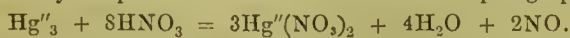
SODIC NITRATE,  $\text{NaNO}_3$ . (Nitrate of sodium; *Nitrate of soda*,  $\text{NaO}, \text{NO}_5$ , B. P.) This salt is noticed in the Appendix as an article employed in the preparation of medicines.

POTASSIO NITRATE,  $\text{KNO}_3$ . (Nitrate of potassium; *Potassa nitras*,  $\text{KO}, \text{NO}_5$ , B. P.) The officinal potassic nitrate is simply ordinary saltpetre purified by re-crystallization.

ARGENTIC NITRATE,  $\text{AgNO}_3$ . (Nitrate of silver; *Argentum nitras*,  $\text{AgO}, \text{NO}_5$ , B. P.) This salt, so much used as a caustic, is formed by dissolving refined silver in diluted nitric acid, with the aid of a gentle heat. Water and nitric oxide gas are simultaneously produced :

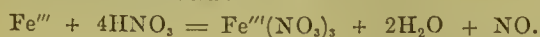


MERCURIC NITRATE,  $\text{Hg}''(\text{NO}_3)_2$ . (Nitrate of mercury, *HgO}, \text{NO}\_5, B. P.) The preparation called *Liquor hydrargyri nitratis acidus* is an acid solution of this salt prepared by dissolving mercury in cold diluted nitric acid. The reaction is directly comparable to that noticed in the last paragraph :*



To expel the nitric oxide the solution is gently boiled.

FERRIC NITRATE,  $\text{Fe}'''(\text{NO}_3)_3$ . (*Pernitrate of iron*,  $\text{Fe}_2\text{O}_3, 3\text{NO}_5$ , B. P.) An aqueous solution of this salt is the officinal *Liquor ferri pernitritis*. It is prepared by dissolving iron wire in diluted nitric acid :



BISMUTHIC NITRATE,  $\text{Bi}'''(\text{NO}_3)_3$ . This normal nitrate of bismuth is formed in the first part of the process for preparing *Bismuthum album* by dissolving the metal in nitric acid. The officinal compound, white bismuth, is produced by the action of water upon a concentrated solution of the normal salt. It is a basic nitrate, and is represented in the Pharmacopœia by the formula  $\text{BiO}_3, \text{NO}_5$ , which corresponds to the modern formula  $\text{BiNO}_4$ . This salt may be regarded as a compound of the normal nitrate and bismuthic oxide for  $3\text{BiNO}_4 = \text{Bi}'''(\text{NO}_3)_3 \cdot \text{Bi}'''_2\text{O}_3$ .

#### VARIA.

THE *Intellectual Observer* writes :—Of the substances which have been considered likely to supersede gunpowder hitherto, gun-cotton and nitro-glycerine have attracted the most attention. But of these the former, notwithstanding its many advantages, is liable to such serious objection that the Austrian Government, notwithstanding the great preparations which

had been made for its introduction into the appliances of war, has issued the most stringent prohibitions against the use of it. The terrible explosions which have lately been caused by nitro-glycerine will go very far towards preventing its employment even in mining, for which it would appear specially adapted. Another substitute of gunpowder, in the form of *gun-paper*, has been recently proposed, and the experiments made with it have afforded very favourable results. It is formed by impregnating paper with a composition which consists of 9 per cent. chlorate of potash,  $4\frac{1}{2}$  per cent. nitrate of potash,  $3\frac{1}{2}$  per cent. ferrocyanide of potassium,  $3\frac{1}{2}$  per cent. powdered charcoal,  $5$ - $100$ ths per cent. starch,  $6$ - $100$ ths chromate of potash, and nearly 80 per cent. water, and has been boiled for about an hour. This mixture is perfectly safe; and the paper impregnated with it, even in the dried state, cannot be exploded by percussion, nor by a heat lower than that of ignition. While wet the prepared paper is made into rolls of any required size, which, having been dried at a temperature of 212 deg. Fahr., are cut into cartridges, that may be protected from damp by a coating of xyloidin dissolved in acetic acid.

Schönbein states that a weak solution of peroxide of hydrogen may be prepared by shaking violently for a few seconds amalgamated granulated zinc with a little distilled water contained in a large bottle. Oxide of zinc and peroxide of hydrogen are formed, but no zinc or mercury is dissolved.

In the *Pall Mall Gazette* we read :—"The dark divinity who is said to be especially happy and energetic in times of war certainly appears just now to be verifying the popular superstition. To succeed in gathering together two millions of armed men to shoot one another down for the purposes of three or four beneficent gentlemen with fixed ideas is no inconsiderable achievement. Therefore it is, perhaps, in return for the 'marked sympathy' that Europe is exhibiting for the unmentionable Mischief that we have obtained the new diabolical 'explosives' which have lately made such a noise in the world. The latest invention of the kind must, however, we think, be considered the *chef d'œuvre*. This is called sodium-amalgam, 'one ounce of which,' says an American journal, 'is equal to that of about 25 lbs. of gunpowder, or  $2\frac{1}{2}$  lbs. of nitro-glycerin. Even so little a thing as a spoonful of water coming in contact with 200 oz. of sodium would occasion an explosion equal to that which would be occasioned by the ignition of 5,000 lbs. of powder, or the concussion of 500 lbs. of nitro-glycerin.'" We need not inform our scientific readers that sodium-amalgam is not an "explosive," and that when brought into contact with water it decomposes that liquid very quietly.

It appears that M. Gaillard has lately presented to the Academy of Sciences what he calls a new process of manufacturing common phosphorus matches. The method consists in reversing the ordinary mode of preparation. Instead of steeping the wooden slips first into sulphur and then into phosphorus, he plunges the matches into the phosphorus in the first place, and afterwards into the sulphur. This process is attended with several advantages. One of these is that sulphur is insoluble in water, and that, not being fusible under a temperature of about 128 Fahrenheit, there is no risk of accidental or intentional poisonings of food by these matches, since the sulphur forms an insoluble covering for the phosphorus. Another advantage depends on the hardness of the sulphur coating, which requires more friction than is ordinarily applied for its removal, and the laying bare of a portion of the phosphorus. This is calculated to decrease the risk of fires occurring accidentally from the too-ready inflammability of phosphorus as an outer covering for the lucifer match. How far this process is really new will be seen from the following extract from the "Transactions" of the Society of Arts, referring to a meeting held on May 21, 1846 :—"The thanks of the Society were voted to Mr. C. M. Barker, for his improved congrève-match. Mr. Barker's improvement consists in putting a layer of sulphur over the combustible composition, instead of (as formerly) putting the composition on over the sulphur; so that it requires a temperature of nearly 300° to ignite the match by heat, and a greater quantity of friction than with those formerly used. Moreover, the match is not affected by damp."



## UNITED SOCIETY OF CHEMISTS AND DRUGGISTS.

## BIRMINGHAM.

A MEETING of the members of the United Society of Chemists and Druggists, in Birmingham, called by circular, was held, on Friday the 29th day of June last, at Mr. Packwood's Hon. Sec., 14, Summer Lane, to take into consideration the present and future prospects of the Society, and to express their regret at the unfortunate dissensions existing in the Executive Committee.

The following members were present:—Mr. E. Snape, Provincial Chairman and Vice President of Executive Committee, Messrs. H. Whittles, H. Sanderson, J. Smith, T. Miller, K. Brown, E. Pegg, H. V. Jessop, and C. Packwood, Hon. Sec.

Letters of apology for non-attendance were received from other members.

The circular calling the meeting having been read by the secretary,

It was proposed by Mr. H. WHITTLES, and seconded by Mr. H. SANDERSON,—

“That the Birmingham members of the United Society of Chemists and Druggists regret the dissensions existing in the management of the society, and beg to express their confidence in the President and major portion of the Executive Committee, and their disapprobation of the mode of proceedings adopted by the Secretary and the minor portion of the Committee.”

Carried unanimously.

Proposed by Mr. J. SMITH, and seconded by Mr. E. PEGG,—

“That it is desirable for the future prosperity, and to guard against dissensions in the management of the society, that no gentleman shall be placed on the Executive Committee at the forthcoming Annual Meeting, to be held July 19th, 1866, who is not a *bonâ fide* chemist and druggist.”

Passed unanimously.

Proposed by Mr. T. MILLER, and seconded by Mr. WHITTLES,—

“That while the members of the United Society of Chemists and Druggists feel full confidence in the major portion of the Executive Committee, they trust their interests and privileges will be secured in regard to any terms that may be arranged for future amalgamation with the Pharmaceutical Society.”

Carried unanimously.

Proposed by Mr. H. SANDERSON, and seconded by Mr. K. BROWN,—

“That copies of these resolutions be forwarded by C. Packwood, Hon. Sec., to the President, H. Matthews, Esq., F.C.S., to the Secretary, C. Buott, Esq., and to the Editor of the CHEMIST AND DRUGGIST.”

Signed,

EDWIN SNAPE,  
*Chairman.*

## HULL.

At a meeting of Chemists and Druggists, held at the Station Hotel, Hull, on Friday evening the 6th inst., Mr. Toogood, the Vice-President, in the chair.

A letter was read from the President, Mr. Wokes, stating his inability to be present, having a previous engagement.

The following resolutions were adopted, and unanimously carried:—

Mr. GATES moved, and Mr. STANING seconded,—“That having read Mr. Wade's written charge against Mr. Buott, our General Secretary, and having also read the circular referred to, and Mr. C. Buott's written defence, this meeting is fully satisfied that Mr. C. Buott was justified in adopting the course of which Mr. Wade complains.”

Mr. NOBLE moved, and Mr. HAMMOND seconded,—“That this meeting records its unshaken confidence in the General

Secretary, and pledges itself to support his re-appointment at the Annual Meeting.”

Mr. A. KESTER moved, and Mr. BELL seconded,—“That bearing in mind the reply of the Pharmaceutical Society to the recent proposition made to them, they recommend that no further overtures be made to the Pharmaceutical Society, and that the exertions of the United Society be exclusively directed to the independent incorporation of the trade.”

Mr. BELL moved, and Mr. STANING seconded,—“That it is incompatible with the dignity and independence of the United Society, that the representatives of any Trading Company be upon the Executive Committee in such a number as to secure a majority in favour of their interests.”

THOS. TOOGOOD, *Chairman.*

CHAS. B. BELL, *Hon. Secretary.*

## MANCHESTER.

Resolutions passed at a meeting of the Manchester District Association of the United Society of Chemists and Druggists, on the 9th July, 1866.

“That repeated overtures having been made by the Executive Committee of the United Society of Chemists and Druggists to the Council of the Pharmaceutical Society for the purpose of securing a co-operation of the two societies in obtaining an amalgamation of same, and these offers having been evaded or declined by the Council of the Pharmaceutical Society, that the members of the Manchester District Association hereby express their decided opinion that any further overtures are useless and undignified, and that it is the bounden duty of the Executive Committee to use the undoubted strength of the United Society in obtaining the incorporation of the trade.”

“That this meeting wish to record their thorough confidence in the Registrar of the United Society; to state that in their opinion his services should have protected him from such accusations as made by Mr. Wade; and they cannot help expressing their decided opinion that such proceedings are eminently calculated to injure the Society.”

On behalf of the meeting,

(Signed) J. GRIFFITHS,  
*Chairman.*

## SHEFFIELD.

A special meeting of the members of the United Society of Chemists and Druggists was convened by the honorary secretary of the district, and held at Sheffield, on Tuesday, the 10th day of July, 1866. Amongst those present were E. P. Hornby, Acting President of the District Association; R. Huddleston, Honorary Secretary; Messrs. Ward, Newnham, Maw, Watts, Williams, Jepson, Barber, Cotton, Hudson, Huddleston, senior, Stevenson, Smith, the ex-secretary of the Bradford District Association, etc.

At this meeting the following resolutions were carried unanimously.

“That the best thanks of the Sheffield Association be forwarded to Mr. Buott, senior, for the essential services that he has rendered to the United Society of Chemists and Druggists, and that he may rely at all times of receiving the undivided and earnest support of Sheffield.”

“That Mr. Buott, senior, be admitted a member of the Sheffield Association, and that for the purpose of him giving expression to, and voting for the opinions of the country members, that he be elected as one of the representatives for Sheffield in the Executive Committee in connexion with his duties as Registrar.”

“That as the Council of the Pharmaceutical Society decline to co-operate with the Executive Committee of the United Society in promoting a bill for the general incorporation of the trade, that we as members of the Sheffield Association of the trade, express our determination to enforce the recommendation of the Select Committee of the House of Commons for an Act of Parliament to be passed, based upon the principle of equal rights and self-government.

(Signed) E. P. HORNBY,  
*Acting President of the Sheffield District Association,  
and Vice-President of the Society.*

R. O. HUDDLESTONE,  
*Honorary Secretary—Sheffield District.*

## METHYLATED SPIRIT.—EXCISE PROSECUTIONS.

## PROCEEDINGS AGAINST A CHEMIST AT WOLVERHAMPTON.

(From our own Reporter.)

A CASE of considerable importance to the chemists of the United Kingdom was heard in the Wolverhampton Police Court on Wednesday, the 27th ult., before the stipendiary magistrate, Mr. Isaac Spooner. The Commissioners for Inland Revenue charged Mr. Thomas Reade, chemist and druggist, of Cork-street, Wolverhampton, first, with selling methylated spirit without a license; and, secondly, with selling certain methylated spirit, coloured and flavoured, to be used as a beverage.

Mr. Marshall, of London, appeared on behalf of the Inland Revenue; and Mr. Motteram, of the Oxford Circuit, instructed by Mr. W. C. Umbers, defended.

Mr. Marshall, in opening the case, said the information was laid under the 24th and 25th of Victoria, chap. 91, sec. 5 and 6; and the penalty was, for the first offence, £50, and the second, £100. The Board had ordered the information to be laid, as many other similar cases had occurred.

Mr. Motteram: Pray don't talk about other cases, as this is the only one we have. The others may be as absurd as this.

Mr. Marshall: I merely wish to say what gave rise to these proceedings. The Board having information given them that chemists in the North of England were selling methylated spirit without a license, gave certain instructions to Mr. M'Rae, who went to the defendant's shop on the 23rd of April, and asked for an article called "Indian Essence." He was served with the article, took it away, packed it up, and sent it to the laboratory at Somerset House for analysis. It was there analysed, and was found to contain methylated spirit.

Mr. Motteram: I admit all that.

Charles M'Rae, Supervisor of Excise in Wolverhampton, was called, and stated that on the day named he went to the defendant's shop in Cock-street, and asked Mr. Reade how he sold his "Indian Essence." Mr. Reade replied, "Three pence per ounce;" and he (witness) inquired whether, as he wanted a large quantity, he would not make a reduction. Defendant asked how much he wanted; and witness said about three pints. Mr. Reade said he would let him have some at the rate of 27s. per gallon, but as he did not sell it by measure, but by weight, he would give him an equivalent weight to three pints. He was then served with a quantity of the mixture, equal to about three pints, or 1½ lbs. to each pint; and at witness's request, the mixture was put into three pint bottles, for which he paid 10s. 6d. The bottles were each labelled as follows:—"Reade's Original Indian Essence, a pleasant and effectual medicine, warming and comforting—Antispasmodic, Astringent, Diaphoretic, and Diuretic. Perfectly free from any injurious drugs, and may, therefore, be taken with the greatest confidence. Dose: Adults, one tablespoonful, to be repeated when required; children, one or two teaspoonfuls. Prepared by Thomas Reade, chemist, 9, Cock-street, Wolverhampton. Only three pence per ounce." Witness took the bottles to his office, in Church-street; and he afterwards forwarded two of the bottles, securely packed, to Somerset House. A portion of the third bottle he gave to the defendant's solicitor, and the remainder he now produced.

The witness was severely cross-examined by Mr. Motteram respecting the mode in which the purchase of the three bottles was effected. He admitted that he told defendant that he was unwell, and wanted to try the "essence" as a remedial agent.

Mr. William Markness, analytical chemist to the Board of Inland Revenue, proved the receipt of the two bottles of the essence produced from the previous witness. He made an analysis of the contents of one of the bottles, and found it to consist of methylated spirit, strength 70·1 under proof, highly sweetened with either treacle or very coarse brown sugar. It also contained a small portion of chloroform. He produced the methylated spirit which he extracted from it. It was not a mixture recognised as a medicine in the *British Pharmacopœia*.

Cross-examined by Mr. Motteram: Had been in the employ of the Commissioners of Inland Revenue, as analytical

chemist, for six years. Could tell from his analysis most of the ingredients contained in the essence. He found treacle present, and water and chloroform. He supposed chloroform was a medicine. Did not find essence of ginger, but would not swear there was none present. Did not try for it. If there was any it was in very small quantities. Did not try for essence of capsicum, or for gentian, nor did he find any. The essence had a slightly pungent taste, and he would not swear that capsicum did not contribute to that pungency. Chloroform, and the tinctures of gentian, ginger, and capsicum, were all recognised in the *British Pharmacopœia*, provided they were made with pure alcohol. He did not find in the mixture any sweet spirits of nitre. Had there been 100th part of one per cent. he should have discovered it. Methylated spirit was used to a certain extent, he knew, in the making of tinctures, but, in his opinion, no respectable chemist would use it.—Mr. Motteram here handed a list of medicines sent out by the South Staffordshire Hospital in 1864 to be contracted for, specifying thirty-six tinctures made up with methylated spirit, and asked the witness what he thought of that? Witness replied, all he could say about it was, that it was disgraceful.—Mr. Motteram: And all I can say is that the governors of the South Staffordshire Hospital are very much obliged to the chemist of six years' standing, for the compliment he has paid them. Don't you know that there is a standing order for their use both in the army and navy?—Witness: I do not.—Mr. Spooner: Do you know whether they are used in the London Hospitals?—Witness: I do not.—Mr. Motteram: Why, sir, do you not know that these methylated tinctures are very extensively used by the great body of the surgeons and dispensers in the United Kingdom?—Witness: I did not know it; and my opinion is, if they are so used, the surgeons and dispensers care more for the profit on cheap spirits than for the health of their patients.—Mr. Motteram (sharply): What do you know about it? You're not a physician. If methylated spirit is cheaper, what has that to do with it if the poor want it, and it is as good as ordinary spirit?—Witness: But is it as good?

Mr. Spooner: I can't help thinking that medicines made from the pure spirit are the best to use; and I must express my astonishment that an institution like the South Staffordshire Hospital should use any other.

Mr. Motteram: I am told, sir, that methylated medicines are not only cheaper but equally efficacious.

Mr. Richard Banister, another of the analytical chemists at Somerset House, spoke to the analysis of a portion of the essence, which he found to consist of methylated spirit, syrup of sugar, and a small quantity of chloroform.

In cross examination, witness said that he found no traces of spirits of nitre.

This was the case for the prosecution.

Mr. Motteram then addressed the Court for the defence. He said his client was a very respectable chemist, carrying on business in Wolverhampton, and he had had the good fortune, for the benefit of suffering humanity, to invent a medicine called "Reade's Indian Essence," which he sold only at 3d. per ounce, and which the witness M'Rae knew was a good thing for the disorder he told Mr. Reade he was suffering from when he went to entrap him. Before, however, he went into the particulars of the case, he must say that he could not compliment those who resorted to such means, as the witness M'Rae resorted to, for the purpose of entrapping a man whom they wished to convict. Now the essence in question was one which Mr. Reade had produced at considerable expense to himself, and which had attained a very extensive sale, and for which he charged, as his circular said, only 3d. per ounce. And yet, although people could get gin and brandy at a much lower price than they could the essence, the Inland Revenue, in their wisdom, thought that the people of Wolverhampton were such savages as to purchase the essence at 27s. a gallon as an alcoholic beverage. He contended that it was meant for and sold as a medicine, and as nothing else, and he further contended that his client was perfectly right in the use of all the ingredients which this essence contained. Now the Act under which these proceedings had been taken, made it penal for any person to sell methylated spirits without a license, and further declared that if any person should colour or prepare any methylated spirit with intent to fit such spirit for use as a beverage, he should be deemed guilty of an offence, and

forfeit, on conviction, the sum of £100. Then in order that there might be no mistake as to what the intentions of the Inland Revenue were on the subject, he would read a letter which had been received by Mr. Alfred Bird, of Birmingham, from the Inland Revenue Office in answer to a communication which he had written to them. Mr. Bird's letter (dated 1863) was to the effect that the writer, having seen a list of Pharmaceutical tinctures and medicines, all made of unduty-paid methylated spirit, he wished to know if this was allowed, or whether it was necessary to take out a methylated spirit license, when such spirit was not sold alone, but used in pharmaceutical tinctures, etc. In reply, the letter from the Inland Revenue office stated that the Board did not object to the manufacture and sale of any strictly pharmaceutical preparation, made with methylated spirit, so long as such preparations were used for medicinal purposes only, and not so made and sold for dram-drinking purposes.

Mr. Spooner: Has the attention of the authorities at Somerset House been called to this letter, Mr. Marshall, before taking these proceedings?

Mr. Marshall said that the permission given by that letter was only meant to extend to the preparation of medicines recognised by the *Pharmæopœia*, whereas under the name of "Indian brandee and Indian whiskee," it was prepared and sold for dram-drinking purposes all over the country. The "Indian Essence" sold by the defendant was not considered as a medicine; the Commissioners regarded it in the same light as those sold for dram-drinking purposes.

Mr. Motteram denied that there was any similarity between "Indian brandee" and his client's "Indian essence," and said he would prove in evidence that not a drop of methylated spirit, pure, was used in its preparation; but methylated spirit of nitrous ether was used, and it was the methylated spirit contained in this that the chemists of Somerset House found by their analysis. They had stated that they could not find sweet nitre, but he would call Dr. Hill, a gentleman who for fifteen or sixteen years had been a professor and teacher of chemistry, and who had earned for himself a reputation sufficient to be elected medical officer and analyst for the borough of Birmingham, and he would prove that the mixture contained sweet spirits of nitre, prepared with methylated spirit, and that was what he (Mr. Motteram) meant at the outset of the case, when he said that he would admit that methylated spirit was to be found in the essence. Then as to the question whether this methylated spirit was generally used in the making up of medicines; the document which he had handed in to the Bench contained the list of thirty-six tinctures, etc., required to be tendered for to the South Staffordshire Hospital, showed that methylated spirit was frequently used. If, then, an institution like the South Staffordshire Hospital could use this spirit, why should not the poor be able to go to Mr. Reade, and buy it in such medicines and tinctures as they might need for their relief? But in point of fact Mr. Reade did not use the pure methylated spirit in making up this essence, and he would call the defendant's assistant, who would swear positively that no pure methylated spirit was ever used in the essence; and, if he did this, he should consider that he had proved sufficient to show that the case must be dismissed.

Dr. Hill, Professor of Chemistry and Public Analyst for the Borough of Birmingham, was then sworn: He said that he was applied to by Mr. Reade to analyse the "Indian essence." He received four samples of the essence. One was a bottle, which had been purchased at a shop of a Mr. Cottis; the other three were—a bottle which was compounded at Mr. Reade's, in his presence; a portion of a bottle which came through the Excise; and a portion of methylated spirits of nitre which he saw put into the essence that was compounded in his presence. There was no pure methylated spirit put into the essence he saw compounded. He took four ounces and distilled it, for the purpose of extracting the spirit and nitrous ether, and found it to contain nitrous ether with methylated spirit, and chloroform. The nitrous ether was an essential element of the sweet spirits of nitre. Upon analysing the sample of spirits of nitre he found methylated spirit contained in it. He detected the presence of sweet spirits of nitre containing methylated spirit in all the three other bottles of essence. They presented the same analytical results in like proportions. In the preparation of the essence which was compounded in his presence he saw the following among other ingredients used;—Scotch treacle,

golden syrup, sweet spirits of nitre, essence of ginger, essence of capsicum, infusion of gentian, and chloroform.

Mr. Spooner: Enough to frighten the stomachs of all the Queen's subjects in Wolverhampton.

Mr. Motteram: With all respect to the Bench's stomach, I would recommend you, in case of cholera, to try some; it will do you good.

Mr. Spooner: I should be in doubt about it.

Mr. Hill, continuing, said there was no pretence for saying that the mixture was anything but a medicine, for everything it contained was a medicine, except the treacle and water. Methylated spirit was used very extensively in the preparation of medicines, and the methylated spirit of nitrous ether even more so. The advertisement described the medicine fairly enough; certainly it was diaphoretic and diuretic.

By Mr. Marshall: I have never used methylated spirit myself, nor do I intend. The "Indian Essence" is a Pharmaceutical medicine, but not prepared according to the *Pharmæopœia*. I found indications of nitrous ether in all the samples; am quite sure of its presence, having made comparative tests of each sample. Even if I had not seen the essence made my evidence would not have differed.

By Mr. Spooner: The Medical Council are much opposed to the use of methylated tinctures. They are not now used in the General Hospital, Birmingham.

Mr. Spooner, in reply to an observation from Mr. Motteram, said he asked these questions for the good of the public. He thought that in hospitals especially they ought to have the very best medicines they could get, and he was very much surprised at what he had heard.

Mr. Dulley, chemist, of Worcester-street, was next called. He deposed that the "Indian Essence" was a medicinal preparation, and that there was no pretence at all for saying that it was a beverage.

Andrew Hanning, sworn, said that he had been in the employ of the defendant since December last, and during that period had had the mixing of the essence. That prepared for Dr. Hill, in the presence of that gentleman, was made in precisely the same way as in all other instances. There was no pure methylated spirit used. They used, in all cases, methylated spirit of nitrous ether only, and all the methylated spirit ever present was that which existed in the ether. It was used as a medicine, and a medicine only. He had tried it himself, and found instant relief from it. During the time he had been in Mr. Reade's service they had had about forty gallons of methylated spirit of nitrous ether, and only about one gallon of the simple methylated spirit. They had only used about half of the latter, and that was in the preparation of varnish.

The Stipendiary: That seems to me to be its proper use.

Mr. Motteram: But you are prejudiced. (Laughter.) This essence is really a wonderful medicine. (Renewed laughter.)

Mr. Harkness, recalled by the Bench, said he was quite sure that there was no nitrous ether in the essence.

Mr. Hanning swore positively on his oath that no simple methylated spirit had been used in the composition of the essence. During the time he had been with the defendant, they had made altogether from eighty to a hundred gallons of the essence.

Mr. W. Y. Brevitt, Darlington-street, a member of the Pharmaceutical Society, said he had examined a bottle of the "Indian Essence," and he considered that it was a pharmaceutical preparation. He had supplied the South Staffordshire Hospital this year, and supplied the methylated preparations mentioned in the tender. Did not sell the essence.

By Mr. Spooner: I don't use methylated spirits in my own prescriptions; but I may add, for your information, that the late Mr. Nesbitt did not object to the use of methylated spirits of nitre. Naphtha is largely used as a medicine. I wish it to be understood that I don't agree with methylated preparations. There are not so many tinctures with methylated spirit used in the South Staffordshire Hospital now as formerly.

This being the case for the defence,

Mr. Spooner said that he was prepared then to give his judgment upon the case. The judgment was subject to appeal, and he was very glad that it could be appealed against, both as regarded facts and law; but with respect to law, he did not think that such a course would be necessary. As regarded the facts, however, it was a very different thing.

Three chemists had been called, and had differed in their evidence, as chemists always did—(a laugh)—when employed on opposite sides. It was, he regretted to say, found to be the case that scientific men could always take a scientific view according to the wishes of the party whose cause they were engaged in; and science was not yet so certain but that they could do so conscientiously. It had been urged by the learned gentleman for the prosecution that the Government chemists had necessarily more knowledge of such points as the one which had been considered than had Dr. Hill, because they were more constantly engaged in analyses of this kind than Dr. Hill, who was only called in on these particular investigations. He would grant, for the sake of the argument, that this was so; and possibly, if he had to decide upon the evidence of the chemists, he might have been inclined to come to the conclusion that those who had come from Somerset House were more likely to be right than Dr. Hill. But it would be seen that the case did not depend solely on the evidence of those witnesses; it went further, because the witness Hanning, who had been in defendant's employ six months, and who knew how the mixture was made—and whose evidence he was inclined to believe, for he appeared to give it in a perfectly truthful and straightforward manner—had sworn positively that no methylated spirits were used. Under those circumstances he should dismiss the case. He thought, however, that the inquiry had done some good, for it would draw the attention of the public to the extensive use of methylated spirits in the making of medicines; and he hoped that the South Staffordshire Hospital would be the first to take steps to prevent such use of it, at least for internal medicines. He should do his best, so far as he had any influence, to bring about that result.

The proceedings, which lasted four hours, then terminated.

#### PROCEEDINGS AGAINST CHEMISTS AT BRISTOL.

At the Council House, Bristol, on Friday the 8th ult, eight chemists were charged before the sitting magistrates with having illegally sold methylated spirit. The proceedings are thus reported by our Pharmaceutical contemporary:—

The first case heard was that against Mr. E. T. Sharland, chemist, who was charged—first, that not being a distiller or rectifier of spirits, or licensed by officers of the Inland Revenue, he had sold certain spirits, whereby he had rendered himself liable to a penalty of £50; and secondly, that he mixed a quantity of methylated spirits with oil of peppermint, to fit it for use as a beverage, whereby he had rendered himself liable to a penalty of £100. Mr. Edlin (instructed by Mr. John Miller and Mr. Taddy) appeared for the defendant, who pleaded not guilty.

Mr. Dwelly, who appeared on behalf of the Inland Revenue, explained the law at considerable length in reference to the sale of methylated spirits. Of course spirits were articles which paid excise duty, but the Legislature had passed an Act of Parliament allowing spirits of wine to be sold duty free, under such restrictions as should prevent its being used as a beverage. It might be mixed with naphtha, and then the mixture would be methylated spirits, which might be retailed by persons taking out the necessary license. Since the Act of Parliament had been passed allowing licences to be taken out, a great many had been taken out, but it had been ascertained that quantities of these spirits were sold in Bristol without the license. Mr. Dwelly stated the facts of the present case, and said that the prosecutions were not instituted for the purpose of inflicting severe penalties upon the defendants, but as a warning to others.

Joseph Taylor, an officer of excise, stated that on the 8th of January, he went to the shop of Mr. Sharland, and asked one of the assistants if he sold methylated spirits. The assistant said, "Yes." Witness said, "Put me up a half-pint, flavoured with oil of peppermint." The assistant brought him a bottle containing the methylated spirits and oil of peppermint. Witness paid 9d. for it. He took the bottle outside, and handed it to Mr. Cullingworth, an officer of excise. It was afterwards sealed with the seal of Mr. Evans, supervisor, and sent to Somerset House.

Mr. Edlin: Then you went about expressly for the purpose of getting the chemists to sell you this spirit illegally?

Witness: I went to the shop for the purpose of making a purchase.

Mr. Edlin: And asked for an article which you knew they

could not legally sell; and you did not caution them? [No answer.] Did you buy it for a beverage?

Witness: I purchased it.

Mr. Edlin: That's not quite an answer to my question. Did you buy that as a beverage—to drink it?

Witness: I did not buy it to drink it.

Mr. J. Cullingworth proved having "directed" the bottle to the principal of the laboratory, Somerset House, and Mr. P. T. Evans proved the taking it to the railway office.

Mr. Harkness, one of the assistant chemists in the laboratory, Somerset House, stated that he had examined the contents of the bottle. The strength of the liquid was 61 over proof, and it was methylated spirit flavoured with oil of peppermint. The label on the bottle was "methylated spirit and oil of peppermint." He knew an article named "finish." It was a light kind of varnish, and was allowed to be sold without a license. One ounce of gum shellac must be added to every gallon of methylated spirit to make it "finish." He examined it to ascertain whether or not it contained gum, but it contained none, and therefore was not "finish." Methylated spirit was made by an addition of naphtha to spirits of wine. The effect of the oil of peppermint was, that to a certain extent it disguised the flavour of the naphtha.

Cross-examined: When the gum shellac was mixed with the methylated spirit in the carboy, the gum shellac would not deposit itself at the bottom of the carboy if the spirit was strong.

The witness, in reply to Mr. Dwelly, said that any chemist might know whether the spirits contained gum or not by the "water" test.

Mr. Evans, recalled, stated that he had called upon Mr. Sharland for an explanation of his selling the spirits without a license. Mr. Sharland said he had not been in the habit of selling it, and did not know that it was required to have a license.

Mr. Sharland: No, I did not say that; I said I sold it as I received it.

Mr. Edlin submitted that Mr. Dwelly should elect which of the two counts he intended to rely upon.

The question was discussed at some length, after which the Bench expressed an opinion that the second count could not be sustained.

Mr. Edlin then addressed the Bench on the first count. He argued that the liquid sold by his client was not methylated spirit, and that, therefore, he did not require a license. He illustrated his argument by instancing the case of a pastry-cook, who, although he mixed brandy with his mince pies, was not required to take out a spirit license, and he was not charged with selling brandy without a license. According to Mr. Dwelly's own showing, what the defendant sold was not methylated spirit, but methylated spirit mixed with something else, which prevented it from being methylated spirit.

Mr. Castle reminded the learned counsel that if a person put sugar and water into brandy, and sold it, he still sold brandy.

Mr. Edlin said that, in dealing with drugs, a very small quantity of one sort materially altered the effect of another.

The Bench thought that the penalty had been incurred, but mitigated it to £12 10s., the smallest amount, and would strongly recommend the Board of Inland Revenue to remit the whole.

Mr. Henry W. Sanders, of Southwell Street, was next charged with the two offences.

Mr. Edlin said he had conferred with Mr. Dwelly, and the result was that the second count was withdrawn. The defendant, therefore, would withdraw his plea of "Not guilty," and throw himself upon the consideration of the Bench. The defendant was in entire ignorance that he was subjecting himself to a penalty.

The same judgment was given as in the last case.

Mr. Hartland was next charged.

Taylor purchased the spirit on the 8th of January. Mr. Harkness analysed it, and found it to be 59 over proof. There were about 40 grains of gum to the gallon.

The same judgment as in the former cases.

Mr. R. W. Giles, of Clifton, was also charged, and he conducted his own defence.

Taylor said, that on the 14th of February, he went to the defendant's shop and asked for a half-pint of methylated spirit flavoured with oil of peppermint.



The witness, in reply to Mr. Giles, stated that the bottle was labelled, "Finish, half-pint, oil of peppermint, half-drachm."

Mr. Harkness said he found the methylated spirit 61-1 over proof, and there was no gum in it. It was methylated spirit rather purer than any of the other samples they had had to-day, but it was flavoured with oil of peppermint.

The witness was severely cross-examined by Mr. Giles on chemical science.

Mr. Giles was prepared to prove by evidence that the methylated spirit which he was charged with selling was purchased as "methylated finish," but assuming that it was methylated spirit, he contended that he was justified in selling a mixture of it with oil of peppermint. He quoted authorities to show that he might use methylated spirits for making tinctures, medicated spirits, etc., and sell them, except as ordinary beverages.

Mr. Castle said that Mr. Giles had argued the ease ingeniously, but there was the Act of Parliament, which prevented chemists selling the spirits without a license.

Mr. Giles further argued the case, and said that he had conscientiously endeavoured to keep within the law. These goods he had obtained from respectable sources. They were ordered by him as "methylated finish;" they were invoiced as such, and they were sold as such.

After some discussion, Mr. Plippen said he did not know the distinction between this ease and the one which preceded it. There would be a similar judgment therefore.

Mr. Giles intimated his intention of appealing against the decision.

Mr. Ponting, Mr. Robert Fendiek, Mr. A. Hodder, and Mr. Edward Maish were severally charged with the same offense, and judgment given as in the former cases.

## LAW AND POLICE.

### MASTERS AND ASSISTANTS.—MARKED MONEY AND THE POLICE. IMPORTANT VERDICT.

(From our own Reporter.)

At the Lord Mayor's Court, before the Right Honourable the Recorder, and a common jury, on the 16th ult., was tried the case of Warner *versus* Sangster, plaintiff being an assistant, and defendant a chemist and druggist of Long-lane, Smithfield. The action was brought to recover wages due, wages in lieu of notice, and damages for libel and false imprisonment. Mr. Talfourd Salter, who appeared for the plaintiff, in opening the case to the jury said, that his client was a young man only seventeen years of age, and he had suffered a grievous wrong at the hands of the defendant, who had not only summarily dismissed him, but had charged him with theft, under circumstances which would no doubt lead the jury to give substantial damages. The learned counsel having stated that the plaintiff would prove the facts, called George Henry Warner, a smart looking lad, who said that he entered the service of the defendant as an assistant, on the 11th July, 1865. He continued in his service until April 12th, when a detective officer was called in, and plaintiff was, in his presence, charged with theft. He had not stolen anything, but defendant sent him away without the wages that were due to him. In cross-examination by Mr. Besley, for defendant, plaintiff admitted that he gave up to the detective officer sixpence and a halfpenny, but he denied that they were marked. He did go down on his knees and ask that he might be allowed to consult his friends, but not to beg for mercy. He admitted having sent the servant girl employed by Mr. Sangster, and the boy next door, to buy things for him, but he never told her he had £8 in his pocket when he took the situation, nor did she ever remonstrate with him upon the quantity of money he was spending. She never said she would tell his master and mistress, and he certainly did not say that he would put something in her tea that would make her drop down dead in a minute. Had bought boxing gloves, fencing foils, pipes and cigars, and had his name engraved on a card plate. He had sworn at the servant girl, and once struck her, because she called him a country bumpkin and a lazy fool. Her nose bled on that occasion, but plaintiff believed that she made it bleed herself. During the time he was with defendant he had about £2 sent him from home. In answer to his lordship, plaintiff said he

should be seventeen in October. He had told defendant that he was eighteen when he entered the service of the latter in July last. Plaintiff's mother deposed to having called upon defendant in reference to this matter, and she was informed that it was very unimportant, plaintiff having been rather wild. Mr. Besley then said that he should prove by four witnesses that plaintiff had not only admitted taking money from the till, but he had also fallen upon his knees and begged for the mercy of the defendant. That mercy had been extended to him, but he had most ungratefully brought the present action. Mrs. Sangster deposed that she was present when Baker, a city detective officer came in on the 12th of April. Some remark was made about the money in the till, and plaintiff finally produced from his pocket a sixpence and a halfpenny which had been marked by the officer. He then fell down upon his knees and begged for mercy for the sake of his poor mother. Plaintiff subsequently produced some coppers which had been hidden in a drug drawer. Witness begged him off, and defendant told him to go away, upon which he thanked witness for her kindness and left the house crying. He did not ask for any wages. In cross-examination witness denied that she had told Mrs. Warner, plaintiff's mother, that the coins found on plaintiff were not marked. Charles Baker, the detective officer alluded to, said he had been in the city police force for twelve years. On the 11th of April last he had an interview with Mr. Sangster, who called at the Smithfield police station. Witness took certain coins and marked them in the presence of Inspector Baily. He marked five sixpences, twelve halfpence, and six pennies. The following morning he sent several customers to Mr. Sangster's shop to purchase various articles with the marked money. Witness took up a position about forty yards from the shop and saw the persons he had employed go in and buy certain articles, which they subsequently handed over to witness, who was shortly afterwards called into the shop by defendant and confronted with plaintiff. Mr. Besley.—Now state to the court in your own way what took place. Witness.—I said to plaintiff, "I am a detective officer, and your master informs me that you are short in your takings this morning." He produced the till and said that it contained all he had taken, to which I replied that he had taken more than it contained. He called God to witness that he had not, and afterwards I requested him to turn out his pockets. He denied that he had any money about him, but produced, upon my pressing him, a sixpence and a halfpenny that I had marked. I said that was not all, to which he replied, "For God's sake forgive me," and fell upon his knees, clinging to Mr. Sangster's legs and begging for mercy. He denied that he had any more money, but upon my insisting that there was some more, he ran to one of the drug drawers and took from it a small powder box, containing six of the marked pennies, eleven marked halfpennies, and threepence halfpenny not marked. Mr. Sangster then said to him, "You know you took 2s. 9d. of my money last Sunday," and he said he had only taken threepence. Mrs. Sangster then begged that her husband would let him go, and he went away, neither demanding any wages nor the sixpence that he had taken from his pocket. In cross-examination, Baker said he had cautioned defendant before he was called in to be careful as to the plaintiff. He had not saved more of the marked money than the coins produced, because he did not know they would be required, but as soon as he heard of these proceedings he put those he had by him carefully on one side. He could swear they were the coins he marked. Mary Cockling, the next witness, caused great merriment in court by her history of the plaintiff's proceedings. She said she was sixteen years of age, and was servant to defendant. Plaintiff used to send her out every morning at seven o'clock for a quart of coffee and two hot buttered rolls, after which he ate his breakfast. Witness thought he was acting in an extravagant manner, and declined to fetch anything else for him, threatening him to tell his master and mistress of what was going on. He said he would put something in her tea that should cause her to drop down dead in a moment. One day he beat witness so fearfully that she was covered with blood. When the officer was in the house she saw plaintiff fall down on his knees. Mr. Sangster, the defendant, was then called, and said, that upon finding a decrease in his receipts he communicated with Baker. He fully corroborated Baker as to all that had taken place. In cross-examination defendant deposed that he had complained of

a number of his assistants for robbing him, but he never called in the services of a detective on any previous occasion. Gave plaintiff 10s. extra at Christmas, because he thought he was worth it. Mr. Besley then urged that his client was fully entitled to a verdict. His lordship asked Mr. Sangster if there were any wages due to the plaintiff from the quarter ending March 25th, and defendant said there was £1 left. His lordship.—The £1 can be recovered then. You see, Mr. Besley, that the money had been actually earned. Mr. Besley did not consider that a master was bound to pay even wages earned to a servant who was discharged for dishonesty. If, however, his lordship ruled this to be the law, the defendant must submit. Mr. Salter contended that the defence had signally failed, and that his client was a very illused young man. It was quite clear plaintiff was entitled to the £1, and the learned counsel was sure the jury would award him substantial damages for the imputation thrown upon his character. His lordship in summing up to the jury said, that plaintiff was certainly entitled to the £1 which he had earned before the present charge was brought, and before the new quarter's wages commenced to run. The question for the jury in this case was, had the plaintiff been guilty of robbery or had he not? On the one side there was the plaintiff, who was entirely unsupported. Plaintiff certainly had said that he had not taken any money from the till, but upon the other side there was very strong evidence against him. As regarded the marked money, if plaintiff had given change to anyone and had reimbursed himself, there might have been doubt, but he had denied having any money at all upon his person. On the other hand, there was a very strong case made out for the defendant, and it was supported by four persons. Before the jury could find in favour of the plaintiff, they must conclude that those four persons had committed perjury. If the jury believed that the plaintiff had not been guilty of robbery, then he certainly was entitled to most substantial damages, but before they could do this they must decide that the case presented by the defendant was false, to the knowledge of the four persons who supported it. After a very short deliberation the jury retired and were absent about ten minutes. Upon their return, they found a verdict for the defendant upon all the issues except the 20s. for wages. This was really a verdict for defendant mainly, and no application was made by plaintiff's counsel for costs. Before they retired the jury wished to express to his lordship their full belief in all that Baker had sworn. His lordship quite agreed with the jury, and said that he had known Baker for many years, and that when Baker was before him he had always conducted himself extremely well. Thus terminated this very extraordinary case, which lasted from half-past ten in the morning until a quarter-past five in the afternoon.

#### CONVICTION OF A SURGEON FOR FELONY.

At the Surrey Midsummer Quarter Sessions, held at Guildford on Thursday last, Lake Young, *alias* William Augustus Young, forty-seven, described as a surgeon, was arraigned on three separate indictments, *viz.*, for stealing a caustic pencil-case and a book, the property of Mr. W. Davies, surgeon, of York Town, Frimley; for feloniously embezzling the sum of two shillings while in the service of Mr. Davies; and for obtaining a watch, value £10, from Alfred Porter, of Hartley Wintney, Hants, under false pretences, with intent to cheat and defraud. The investigation of these cases before the magistrates of Farnham was reported in our columns last month.

Mr. Lilley and Mr. Straight were counsel for the prosecution; the prisoner, who pleaded "Not guilty" to each of the indictments, was undefended, but cross-examined the several witnesses with considerable ingenuity.

The evidence was similar to that taken before the magistrates; but several letters were handed to the Chairman by Mr. Straight, which had reference to the prisoner's conduct in other parts of the country. The learned counsel said that it was not the intention of the prosecution to press the charge named in the third indictment, for obtaining a watch under false pretences. One of the letters stated that, in the latter end of 1864, the prisoner was in Abergavenny with a Dr. Butts, to whom he represented himself as a very wealthy man, and that he had a daughter who was going to be married to a very wealthy person in Australia. He left that town suddenly at the end of January, owing about £300 to

various persons there. Another letter stated that the prisoner's wife lived at 25, Pine-street, Liverpool, where he had five children. The jury found the prisoner guilty, and he was sentenced to nine months' hard labour. The case excited great interest in a crowded court.

#### CHARGE OF EMBEZZLEMENT.

At the Mansion-house, on the 26th ult., Thomas Thorne, a commercial traveller, underwent a final examination on a charge of embezzling two sums of £2 17s. 9d. and £1 6s. 6d., received by him on account of his master, Mr. Henry Harris, of 19, Bread-street-hill, bottle merchant. The prosecutor desired to withdraw from the prosecution, in consideration of the prisoner's wife and children, but the Lord Mayor demurred, on the ground that, distinct evidence having been given at the former hearing as to the acts of embezzlement, he had no alternative but to send the case for trial, though he appreciated the forbearance and the reason for it which had prompted the application. He also took occasion to say, as had others before of the Aldermen who occasionally sit in the justice-room, that he thought the law was defective in not giving a summary jurisdiction to magistrates to deal with charges of embezzlement of comparatively small amount, as in the case under consideration, like that which empowered them so to dispose of charges of a kindred nature, such as larceny by a servant, for example, where, as the law now stood, there was no limit to the value of the property stolen, or the amount, if in money, so far as the summary jurisdiction went. The prisoner was committed for trial.

#### BOTTLE ENVELOPES.—BRETT *v.* WHITEHEAD.

This was an action tried for libel in the Court of Exchequer on the 7th inst.—It appeared that the plaintiff was one of the directors of a company called the Bottle Envelope Factory Company (Limited), and the defendant was a manufacturer and patentee of bottle envelopes, carrying on business at 37, Eastcheap, City. Early in the present year the defendant published a circular headed "Caution," in which he warned the public against purchasing the envelopes manufactured by the company, and threatened to put a stop to the proceedings of "specious schemers who are constantly prowling about in every trade." It was alleged that this expression was intended to be applied to the plaintiff among others.—The jury ultimately returned a verdict for the plaintiff—Damages, 20s.

#### A VALUABLE BOILER-LID.

At Guildhall on the 3rd inst. Jacob Zwanewebber, who described himself as a porter, residing at No. 3, New Tewkesbury-buildings, Whitechapel, and Edith Zwanewebber, his sister-in-law, residing at the same address, and whose husband is a butcher carrying on business at Amsterdam, were placed at the bar, before Alderman Salomons, charged with being in possession, in Aldersgate-street, of 62 oz. platinum, of the value of over £50, supposed to have been stolen. James Brett, a serjeant in the City detective force, said a little after two o'clock yesterday he was in company of Kerrage (an officer of the same force), in Aldersgate-street, when he saw the two prisoners and stopped them. He said to the male prisoner, "I have reason to believe that you are unlawfully in possession of valuable property, and it will be necessary for you to go with me to Moor-lane Police-station and give an account of it and of yourselves." The man appeared or pretended not to understand him. He repeated that he was a police-officer, and that they must go with him to the station. The man said, "Very well," and they all went to the police-station. At the station the woman took from under her shawl a parcel which contained 62 oz. of platinum, which was a portion of the top of a boiler used for chemical purposes, and was of the value of £50. He then asked the male prisoner their names and addresses, which he gave as above. He had no conversation with the woman, because she could not speak English. He asked the male prisoner if she was his wife, and he said she was his sister-in-law. And in reply to further questions, he said that he lived in the Tenter-ground, but took his meals with his sister-in-law; he had been in England three years, and the female prisoner came here on Wednesday last. He further said that a man in Holland gave it to the female prisoner for sale, but that she did not know his name, nor where he

lived. When he asked questions about the woman, the male prisoner spoke to her in a foreign language and then gave the answers. During this conversation the male prisoner told him that his sister-in-law met the man in Holland, who gave her the platinum, that she mentioned she was coming to England on pleasure, and that he asked her to sell it for him at 15s. per ounce, and take the money back to Holland. She was to give him whatever she thought right for his trouble. The female prisoner's husband was a butcher at Amsterdam. He knew of her coming to England, but not of her being in possession of the platinum. They were searched at the station, and on the woman was found 11s. 6d. and some jewelry, and 3s. on the male prisoner. Witness said he had discovered where the man lived, and it was in a wretched hovel in Petticoat-lane. The male prisoner, in reply to Alderman Salomons, said all he had to say was that he only showed the way to his sister-in-law and spoke English for her. The evidence having been translated to the woman by the consul she said it was true. Mr. John Scudamore Sellon said he was one of the firm of Johnson, Matthey, and Co., of Hatton-garden, refiners to the Bank of England. They were platinum manufacturers and refiners. The metal produced was offered to his firm for sale by Messrs. Johnson and Walker, of Aldersgate-street. The offer of platinum in that state was so unusual that the matter was referred to him. He at once said he believed it to be a portion of a lid of a boiler or still that had been stolen from Utrecht in April last. He took the measure of the ring and sent it to Utrecht to know if it corresponded with the measure of their boiler, and he had received a telegram back stating that it did. He had no doubt of its being the identical metal that was stolen. Very few of these boilers existed, and they were all made either by themselves or a French house. The boiler in question had been made by the French house. Alderman Salomons remanded the prisoners for a few days.

### ACCIDENTS.

#### A MARTYR TO SCIENCE.

LAST Tuesday, a very painful investigation was made before Mr. C. St. Clare Bedford and a select jury, at the new Vestry-hall of St. James's, Piccadilly, as to the lamented death of Mr. Joseph Toynbee, F.R.S., F.R.C.S., residing at 18, Saville-row. George Power, who had been a servant in deceased's establishment for nearly six years, said that he was last in conversation with his master at ten minutes to four on Saturday afternoon, owing to a patient wishing to see him. He was lying on the couch. He had delayed his luncheon on that day until half-past one, and as he usually took a sleep afterwards, he told witness not to disturb him for an hour or so. When witness knocked at the door, he was answered, "Come in;" and on entering, his master had apparently awakened from a sleep. There were papers on the chairs, and deceased's watch on the table. Before the patient was admitted, deceased removed the papers, and seated himself in his consulting chair. The interview did not occupy more than a couple of minutes; and on the patient's leaving, he said he was coming again on Monday. Another patient called; and on witness re-entering the room, he found his master lying again on the couch, with a piece of cotton wool over his nose and mouth. The chairs and papers were placed as before. He thought deceased was asleep, as he did not answer; and he thereupon removed the cotton wool; but from the appearance presented, he became frightened, and thought something was wrong. He then ran for medical assistance, calling at several of the doctors' houses in Saville-row, but without effect. On his return, however, Dr. Markham, having heard that assistance was required, had called in. On the Thursday previously he was doing something, but he could not tell whether it was connected with chloroform. He vomited a great deal in the wash-basin, and gave witness his necktie and waistcoat to sponge. Dr. Orlando Markham, of 3, Harley-street, Cavendish-square, said the deceased was a colleague of his at St. Mary's Hospital. He went in about five o'clock, and saw the deceased on the sofa perfectly dead. There was some cotton wool on the table close by, which smelt strongly of chloroform. Dr. Leared happened to come in at that time, and they both tried artificial respiration for half an hour, without the least

hope of restoring life, of which there was not the slightest sign. There were papers on two chairs, and a watch upon one set of the papers. On the first slips there was one which referred to an experiment apparently tried on Thursday last, viz., "The effect of inhalation of the vapour of chloroform for singing in the ears, so as to be forced to the tympanum, either by being taken in by the breath through a towel or a sponge, producing a beneficial sensation of warmth." The second paper was an experiment on "The effect of chloroform combined with hydrocyanic acid." This was not classified, apparently waiting for a result. Close to his hand, on a chair, were two bottles, which had been obtained at Bell's that afternoon. The other contained rectified ether, which had not been opened; the second was a little more than half full of hydrocyanic acid. He did not detect any smell of hydrocyanic acid, for that acid would evaporate very quickly. There was also a machine made of india-rubber lying on the chair, used for injecting ether or other vapours; and afterwards was found underneath the sofa, just as his hand—that of a dead man's—would fall, a six-ounce bottle, completely empty, which had contained chloroform, but was dry, and free from smell. The stopper was not in. From his experience he should say the appearances were quite consistent with death from the effects of chloroform, but it was not possible to say that there was a combination of hydrocyanic acid with chloroform, owing to the advanced state of decomposition of the body, both being so volatile that they speedily evaporated in an ordinary temperature. After a good deal of additional evidence, the jury returned the following verdict:—"That the deceased met with his death accidentally, while prosecuting his experiments, by inhaling a combination of chloroform and prussic acid; and the jury desired to express their deep sympathy with the family of the unfortunate deceased gentleman." The coroner expressed his concurrence with the verdict and expressions of the jury. The deceased enjoyed a high reputation as a surgeon and author. His treatise on "The Diseases of the Ear," published by Churchill, is a standard work.

### GOSSIP.

At the forthcoming meeting of the British Association, in Nottingham, the opening address will be delivered in the new theatre by Mr. W. R. Grove, Q.C., F.R.S., the President elect. Excursions of scientific interest will be taken to the Midland Railway works at Derby, Eastwood Ridings, Cinderhill, Annesley (the birthplace of Lord Byron's "Mary"), Newstead Abbey, the Derwent and Wye Valleys, and Charnwood Forest. The Dukes of Devonshire and Rutland, Mr. W. F. Webb, Mr. Ambrose de Lisle and other gentlemen have volunteered to entertain the members of the association at the above places.

The following candidates passed their examination as Pharmaceutical Chemists on the 13th inst.:—Parson Custance Baker, Holt; John Day, Retford; John Hugh Davics, Newcastle-on-Tyne; John Goucher, Wellington, Salop; Thomy Pasnin, Mauritius; Thomas Barker Horner, Woolwich; John James Thorn, Crediton; Henry Alcock Averill, Stafford; George Baxter, Chester; John Temlett Long, Bristol; Richard Pheysey, Waterloo.

A grocer named Cowgill, at Colne, has been fined £12 10s. for selling "Indian brandee" without a license. It was proved before the bench of magistrates that this horrible compound, retailed at 6s. a quart, cost but 1s. 9d. per gallon.

The Government authorities at Cologne have issued a circular, cautioning the public against variegated slate pencils. Schweinfurt green, which contains arsenic, is used for the green, chromate of lead for the yellow, and red lead for the red varieties. The circular points out the danger of this practice, especially to children, by whom slate pencils are chiefly used.

A case was recently decided in the Sheffield county court of considerable importance to housekeepers and heads of families. A Mr. Goodlad, of the Park, was sued for his milk bill, and resisted payment on the plea that, having ordered a certain number of quarts of milk, he had been supplied with very weak milk and water. His defence availed, and a verdict, with costs, was recorded in his favour. "Why should any of us pay our milk bills," asks the *Pall Mall Gazette*, "if such a plea is a valid one?"

The writer apparently wishes to prove that the shop is not altogether beneath the notice of a journal which represents the body of Pharmaceutical Chemists, and that there are actually some duties, though they are of a delicate and questionable character, which may be performed by the commercial editor, Mr. BARNARD, whose name now appears on the cover of the journal. Having noticed the announcement of the names of the three editors who represent the scientific and commercial departments, he takes care to inform his readers that the modification of the outer title-page "has been made, not for the purpose of introducing any change into the work itself, but that each department may receive its fair share of consideration."

Mounting high upon his one stilt, he says:—"The first efforts of the Society were strictly educational. *Pharmacy, as a science, had to be created.* For this end, the school, the lectures, and the laboratory were originated; and it may be confidently stated that, at the present moment, English Pharmacutists, as skilled scientific men, are quite able to sustain their position."

But on coming down to the level of the shop, he adds:—"Having laid the true foundation, we are the more at liberty to give greater prominence to trade considerations, which may hitherto have been somewhat in abeyance; and, in doing so, our efforts might be greatly assisted by the aid of the Society at large. It is, perhaps, the subject of all others most likely to be advanced by an interchange of opinions."

Then, lest his readers should imagine that the journal is coming into direct competition with a certain trade organ that shall be nameless, he again raises himself on his stilt and takes a sort of bird's-eye view of trade interests.

"It may be asked," he says, "what are trade interests, and what is included in the phrase? Is it meant that the Journal should be a sort of price catalogue of drugs and sundries,—that it should puff the catch novelty of the hour,—or that it should chronicle sheet-lightning and the Chinese fire? Is it meant that it should fill its pages with familiar gossip best suited to the columns of cheap weekly literature, or pry into that class of preparations, which from time to time have given commercial prosperity to individual houses? There is no such object contemplated; but it is thought that a wide field is open for the discussion of such matters as would prove either of interest or advantage to men engaged in business."

Now as many pages in the last volume of the *Pharmaceutical Journal* are devoted to Pharaoh's serpents, persistent soap bubbles, and other "catch novelties" of the hour; as numerous communications, printed in the same volume, relate to proprietary preparations; and as every number is well "padded" with newspaper cuttings and scraps of personal gossip—the writer very wisely drops down suddenly to the level of common-sense, and says:—

"In these days of extreme refinement we are in danger of being occasionally too fine. Let us then say at once, that the main object of this department should be efficiently to represent the shop. Notices of original apparatus, new remedial agents, better methods of laboratory manipulation, would be especially welcome, not excluding hints on dispensing arrangements, or any other subject bearing on the practical improvement of routine druggist's work."

In his closing paragraph, the writer again rises and falls between a strong desire to "sink the shop," and an indefinite intention to represent trade interests:—"It will be a dark day indeed," he says, "when the trade interest

shall in any way interfere with or supersede the scientific. In this, as in all other things, we must use common sense. Still, it is felt that the high reputation of the Journal will not be endangered, and that its general acceptability may be increased by more direct attention to every-day particulars. Specially is the subject commended to those amongst us who have passed through their educational career with enviable honour, and who, with the full advantage of scientific acquirements, have entered upon active business occupations. Theirs is the help we want, and with such energetic aid, our Journal may soon stand without a rival as the best exponent of the trade interests of pharmacy."

Whether its general acceptability may or may not be increased by the means indicated, we are determined that the *Pharmaceutical Journal* shall not be the only worthy exponent of the trade interests of pharmacy, or the only record of the progress of pharmaceutical science. In our open columns we can make free remarks on pure trade questions, which pharmaceutical writers are compelled to treat very gingerly. On this account we think our respected contemporary should have sought increased reputation as a scientific journal rather than the character of a more direct representative of the trade element of pharmacy. It is quite certain that Mr. BARNARD, the commercial editor, will not do much to promote trade interests if he thinks he ought to imitate the poor gentlewoman who softly cried "water-cresses" in the street, hoping all the while that nobody would hear her.

#### THE MEETING OF THE UNITED SOCIETY.

WE will not venture to foretell the result of the impending battle at New Ormond Street, which is to decide whether the Secretary or the Executive Committee shall predominate in the United Society of Chemists and Druggists. We have no trustworthy data by which we can estimate the strength of the contending parties, and can only guess at the plans of the leaders. The recent movements of the Secretary prove him to be a great strategist, and we have not the least doubt that he will bring an imposing force into the field on the 19th. Mr. Wade relies upon the natural strength of his position, and upon the support of his brother officers, and volunteers from the district associations. We believe that he has a good cause, and should he be forced to retire from the field, we are quite sure that he will be followed by the President, and many of the staunchest supporters of the Society. We trust, however, that the good sense of the majority may bring about a very different result, and that the battle of Thursday next may be followed by a lasting peace.

The important meeting at Birmingham on the 29th ult. cannot fail to inspire the majority in the Executive Committee with confidence. The resolutions unanimously adopted by that meeting confute the assertion that Mr. Buott will have the support of the country members generally. Other meetings have since been held at Hull, Sheffield, and Manchester, and the resolutions passed at each are strong expressions of confidence in Mr. Buott. We cannot believe, however, that any large meeting of chemists and druggists will indorse these resolutions. It appears that Mr. Buott's written defence was submitted to the Hull members on the 6th inst., though it could not be brought before the sub-committee specially appointed to consider all matters relating to the recent discussions until yesterday, while we were at press. We know that "distance lends enchantment to the view," and must admit that Mr. Buott acted wisely, though some-

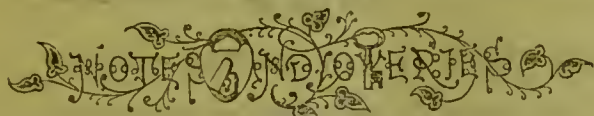
## GAZETTE.

## BANKRUPTS.

BANKS, T., Hulme, Lancashire, surgeon's assistant.  
 BELLEVILLE, H., Parkside, Knights-bridge, perfumer.  
 BURNETT, J., Birmingham, druggist's assistant.  
 GARLUCK, EDMUND HENRY, Plymouth, chemist.  
 HATTON, FREDERICK, Sutton, near Macclesfield, surgeon's assistant.  
 LALOR, ROBERT D., Mecklenburgh-street, doctor of medicine.  
 ROSS, FREDERICK DUMARESC, Guildford, Surrey, surgeon.

## PARTNERSHIPS DISSOLVED.

BARCROFT and SON, Radcliffe, Lancashire, drysalts.  
 CANSTALL, N. J., and ASHER, A., Castle-street, Hounsditch, and Bernard-street, Russell-square, surgeons.  
 CRAPPER and BRIERLEY, Hanley, Staffordshire, dentists.  
 DAKIN, T., and J., Creechchurch-lane, and elsewhere, London, wholesale druggists.  
 DIXON and Co., Ashmeads-mill, near Chalford, Gloucestershire, manufacturing chemists.  
 DUNN, HEATHFIELD, and Co., Princes-square, Finsbury, manufacturing chemists.  
 EVANS and GRIFFITHS, Liverpool, chemists.  
 HATRILL, THORNHILL, and HATRILL, Willenhall, Staffordshire, surgeons; as far as regards J. H. Thornhill.  
 IBBITT, H. E., and BROTHERS, Sheffield, chemists.  
 JENKINS and TOMALIN, Kingston-upon-Hull, German yeast importers.  
 LEES, JOHN and JAMES, Stalybridge, Lancashire, chemists; as far as regards John Lees.  
 LISTER, GARBUTT, and Co., Leeds, drysalts.  
 MACGOWAN, A. T., and SMITH, W. A., Leicester-street, Regent-street, joint proprietors of the "Medical Mirror."  
 MATTHEWMAN and SUTCLIFFE, Bradford, Yorkshire, cotton warp agents, and Huddersfield, manufacturing chemists.  
 MORTON and LITTLE, Aylsham, Norfolk, surgeons.  
 POULTEE, MARCELLIS, and Co., Wellington-street, Camberwell, mineral teeth manufacturers.



## TEN-OUNCE AND EIGHT-OUNCE BOTTLES.

"A Junior" (Radcliffe Bridge) sends us the following note:—

"When reading Mr. S. Taylor's very admirable remarks on 'Hints to Dispensers' in your May number, it occurred to me that there were other peculiarities requiring some explanation. I have frequently seen prescriptions ending

"Aq. ad Oss.

"I made one up some time ago, and, of course, used a ten-ounce bottle, for which I was called to account by the prescriber, who said he meant a half-pound bottle!

"I have heard of patients getting eight-ounce bottles of cod-liver oil given them when their prescriptions have ordered Oss.

"Is it right to supply a person with eight-ounces when the prescriber orders half-a-pint?"

"Is it right for a dispenser to use an eight-ounce bottle when a ten-ounce is ordered?"

**A FEMALE PHYSICIAN.**—A justice of New York has just had a difficult case to decide. Miss Dr. Mary A. Walker, who indulges in the Bloomer costume, appeared one day in Broadway with a very long train of boys. A policeman arrested her, and took her before the justice in question, on charge of being dressed in the attire of a man. It was alleged that the crowd which followed Dr. Mary sufficiently proved that no deception was attempted with regard to her sex. A lawyer of the police-court declared that "any man or woman who should dress in a way that would attract attention was violating the law." To this it was replied triumphantly that the great majority of New Yorkers dressed for the purpose of attracting attention. We say triumphantly, for the justice decided that no case was made out against the fair physician, who thereupon returned to Broadway, where she has since appeared in her "Bloomer" at her pleasure. Nay, it is even said that the decision has been regarded as an occasion for other women to assert their vested rights, and that "Bloomers" are likely to become too common in New York to engage the attention of the boys. Fifteen years ago many hundreds of persons in "Bloomers" thronged the evening promenades of Philadelphia and one or two other large American cities; but, ceasing at last to attract particular notice, they ceased to appear.—*Pall Mall Gazette.*



LONDON, JULY 14, 1866.

**CORRESPONDENCE.**—All communications should be addressed to the Editor, at 24, ROW-LANE, E.C.; those intended for publication should be accompanied by the real names and addresses of the writers.

**QUERIES.**—The Editor cannot undertake to attend to those which are anonymous, or to send answers through the post.

**SUBSCRIPTION.**—The subscription to the CHEMIST AND DRUGGIST is 5s. per annum, payable in advance. Should a receipt be required, a stamped envelope must be sent with the amount of subscription. A specimen number may be had upon application, price 6d.

**POST OFFICE ORDERS.**—Post-Office Orders to be made payable at the General Post Office to the Publisher, WILLIAM CANNING, who is alone authorized to receive accounts.

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The CHEMIST AND DRUGGIST is published on the Fifteenth of every month, except when that date falls upon a Sunday, when it is published on the preceding day. It is regularly supplied direct to the Members of the Trade in Great Britain, Ireland, the Colonies, and all the principal seats of foreign commerce.

Everything intended for insertion in the current Month must be sent in before the 10th, except Employers' and Assistants' Advertisements, which will be received until 9 A.M. on the morning previous to publication.

## EDITORIAL NOTE.

AN alteration in the imprint of our journal will doubtless be noticed by many subscribers. Mr. JAMES FIRTH, whose name has been associated with the CHEMIST AND DRUGGIST for the last six years, has resigned his office as Publisher, in order to devote his attention exclusively to the business arrangements of the IRONMONGER, a publication which is rapidly rising in importance. Mr. FIRTH retires with the hearty good wishes of all who have so long worked with him; and we gladly take this opportunity of publicly expressing our appreciation of his past services. We have every reason to believe that the present Publisher will prove a worthy successor to Mr. FIRTH, and will soon enjoy the full confidence of our subscribers and advertisers.

## THE "PHARMACEUTICAL JOURNAL" AND TRADE INTERESTS.

WHEN a journalist mounts upon stilts, he necessarily exposes himself to the criticism of those who are content to remain at the level of ordinary humanity. But a journalist on one stilt, alternately rising and falling between the sphere of lofty ideas and that of commonplace actions, is a subject for raillery rather than for serious animadversion. The writer of the article entitled "Trade Interests," in the *Pharmaceutical Journal* for the present month, performs the single-stilt exercise with such amusing gravity and awkwardness, that we really cannot resist the temptation to enjoy a laugh at his expense. In one sentence he proudly looks over our heads from his scientific stilt; in the next his free foot presses *terra firma*; and so he goes up and down through the entire article.

ATTIKED TO ATTRAC

what unconstitutionally, in withholding his defence from the sub-committee until he had obtained a favourable verdict from some of the district associations.

The enemies, as well as the friends of the United Society, anxiously await the result of next Thursday's proceedings. If the chemists who have watched over the Society from its birth are compelled to retire, there will be much rejoicing amongst another body. Mr. Buott may be exalted above the committee, and may be made a member of numerous district associations, but his glorification must be followed by the secession of the most active members of the Society.

We hope the President will attend the meeting, as there is no one who can worthily fill his place.

### SCIENTIFIC MARTYRDOM.

THE *Lancet* of to-day contains the following article suggested by the death of Mr. Toynbee:—

The most serious lesson to be deduced from the very painful and most lamentable catastrophe which has resulted from Mr. Toynbee's experiments upon himself, is the great danger of such individual self-sacrifice. It is not the first time that eminent members of our profession have, even lately, jeopardized their lives by trying experiments upon themselves with dangerous and poisonous substances, of which the doses and the effects had not previously been sufficiently ascertained by experiment upon the brute kingdom. Dr. Christison came very near killing himself in testing the effect of the recently introduced Calabar bean upon his own organism, and rather carelessly beginning with a large dose of the powdered bean. He was paralyzed and incapable of articulation, helpless, although conscious, and was as nearly face to face with death as a man well can be and yet escape its jaws. Sir James Simpson nearly fell a victim to his experiments with anaesthetics. There is something heroic and grand in such a death as that of Mr. Toynbee. He is truly a martyr to his earnestness of purpose and generous zeal for the advance of a beneficent art. No soldier in the line of battle, no saint steadfast in theological fidelity, ever lost his life in a purer or nobler cause. But heroism which involves such a sacrifice is only perfectly sanctified by a proved necessity; and although some risk must always be run by the original investigators who prove the effect of untried agents upon themselves, yet a risk so great as this might have been avoided; and in grieving over the fate of Mr. Toynbee, in exalting his self-sacrifice and his earnest purpose, we cannot omit to deduce from his sad though noble fate a caution which other investigators will hardly fail to take to heart.

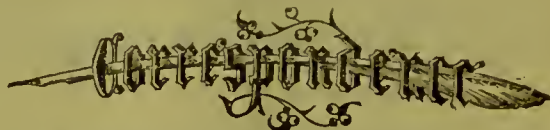
### EXHIBITION OF OBJECTS RELATING TO PHARMACY.

WE beg to remind our subscribers that the Exhibition at Nottingham connected with the British Pharmaceutical Conference, will be opened on the 21st of next month. Intending Exhibitors who have not yet applied for space, should write at once to Mr. J. H. Atherton, the Local Secretary, at Nottingham.

### PHARMACY IN AUSTRALIA.

THE following remarks, extracted from a letter addressed to Mr. Bremridge by a pharmacist in Sydney, are printed in the *Pharmaceutical Journal* of this month:—"The population of Sydney is nearly 100,000, about one-fourth of the whole colony; and there are about forty chemists in this town and suburbs to supply the public, one-half being *bona-fide* chemists, and the other half a mixture of broken-down store-keepers, etc., who have adopted the profession as a last resource. In the principal street, viz., George-street, there are firms equal to any in Regent-street, and who, from their style of doing business, and quality of drugs, merit every confidence, and are well supported by the leading medical men. There are also a few who do a cutting trade. Prices, generally speaking, are very fair, but rents are extravagantly high, and expenses very heavy. Those individuals who have crept into the trade of course do not hide their light under a bushel, as you will see by circular (enclosed), but try their

hand at everything—viz., consultations, visiting, dentistry, etc.. One of these gentlemen only made two fatal mistakes in about six months. We have two wholesale druggists here. They charge, on an average, 75 and 100 per cent. on wholesale prices (London), and whilst they profess to be purely wholesale, will serve any one with one pound of carbonate of ammonia or tartaric acid at wholesale price, to the prejudice of the retailer. Strange to say, there is only one good London house represented here. Mr. Holloway has a draper for an agent, and Messrs. Perry and Co., of Triesmar notoriety, one of the oldest established retail druggists for an agent. All patent medicines cost, wholesale, 14s. per dozen, small size, being only 4s. 6d. beyond cash price in London. There are plenty of assistants in the colony, more than can find situations; and several would be very glad to return, if they only had sufficient means. The hours are generally from seven a.m. to eleven p.m., and all day on Sunday, as at home; and a great many young men find a grave out here instead of a fortune, the climate being a very trying one. I am pleased to see that chemists begin to understand it is for their interest as much as for the safety of the public to compel every one to pass an examination before going into business; and I think if the same was law here it would do good, and not prevent a man from being a business man, which some foolishly suppose."



### THE CRISIS IN THE UNITED SOCIETY.

TO THE EDITOR OF THE CHEMIST AND DRUGGIST.

SIR,—I noticed with considerable anxiety your article headed "The Crisis in the United Society," and regret that as an impartial public journalist you should have deemed it advisable to publish an editorial opinion, either *pro* or *con*, of the two parties in the Executive Committee who are at present unhappily somewhat at variance, a disagreement, from whatever cause arising, deeply to be deplored. To the generality of the country members the talented and accomplished chairman, and Messrs. Wade, D'Aubney, etc., are quite unknown, but those of us who have made their acquaintance at the annual meetings, and on other occasions, can testify to their urbanity, gentlemanly bearing, and their professions of attachment to the United Society, and to them we are indebted for the idea which suggested the necessity and possibility of founding the Society. We, therefore, with the Editor of CHEMIST AND DRUGGIST, are astonished that the slightest suspicion should enter into the minds of any of their coadjutors that they wished to betray their professional brethren. Our general secretary is personally known to most of the country members, and by his indefatigable and self-sacrificing labours on behalf of the society, and by his acquaintance with, and his manifest desire to promote, the interests of Chemists and Druggists, has merited and won almost universal esteem. He may not be a *bona-fide* Chemist and Druggist, and would therefore, by the adoption and rigid application of Mr. Wade's resolution be excluded from the Executive Committee, but we in the provinces have always considered him "the right man in the right place," and if Mr. Wade intended, when he proposed his resolution at the first meeting of the society that it should apply to the general secretary, such an intention is strangely irreconcilable with his eulogistic remarks at subsequent meetings.\* All the gentlemen are valuable men, and have done good service to our cause; it is therefore the more deplorable that any antagonism should exist amongst them. It is to the minds of many of your readers somewhat remarkable and suggestive that no difference existed prior to the formation of "The Wholesale and Export Drug Company (Limited)." I do trust that at the meeting on the 19th inst., explanations will be given and arrangements made which will restore the perfect harmony which once subsisted, and that an efficient administration

\* Mr. Wade's resolution to elect none but chemists and druggists on the Executive Committee could not possibly affect the paid Secretary of the Committee.—ED. C. AND D.

will be organised that the society may prosecute its mission with untiring energy and complete success.

Much has recently been written respecting the development of a liberal policy in the Pharmaceutical Society. Messrs. Wade and D'Aubney imagined they had discovered a spark of liberality when they were induced to enter into that abortive correspondence with Mr. Procter; but so far as the Pharmaceutical Society is concerned even Mr. Procter's feeble light is quenched. Now your correspondent "Moneo" fancies he has discovered some auroral rays betokening a bright approaching day. There are numbers of your readers who would be very thankful if, through the medium of your journal, or by any other means, they could be informed in what this liberal policy consists, or by what microscopic power its incipient developments are to be discerned. It certainly does not consist in a disposition to cede to Chemists and Druggists generally the use of the name of "Pharmaceutical Chemist." That high-sounding and significant title "is a vested interest given under the Act of 1852; it is the one title legalised, and the one vested interest to be protected for the original members as a foundation, and beyond them for those only who pass the major examination." We have never asked for, nor even desired, such a priceless privilege.

It does not consist in a manifest willingness to join hand and heart with the United Society in our combined effort to secure for the trade that legislation which all acknowledge to be desirable. On more than one occasion our Executive Committee have conveyed to the Pharmaceutical Council expressions of willingness to unite with them on honourable terms, and have been rudely repulsed.

In what does this liberal policy consist? Hear what the President of the Pharmaceutical Society says: "I ask you to give nothing, *absolutely nothing*, without an equivalent, but a power to enforce the examination of all future chemists would be an equivalent." What is this great boon for which nothing less than the power to enforce the examination and pocket the fees of all future chemists, would be an equivalent? The President has left us in the dark here, and all he has said on this subject simply amounts to this, "Shut your eyes, open your pockets, and see what a liberal boon the Pharmaceutical Society will send you." We can only judge of the future by the past, and we ask what would the Pharmaceutical Society have given us under the proposed bill of the Medical Council in 1863, which they were prepared to support, and what would they give us under their own Amended Pharmacy Act. Has the Ethiopian changed his skin? Has the leopard changed his spots? Until this liberal policy is clearly defined, I would urge upon our Executive Committee and the district associations the necessity of increasing distinct and separate action. The annual meeting on the 19th inst. will be the fifth anniversary of the society, and during that period it has not been without its triumphs. As a voluntary society with a larger number of members than the Pharmaceutical Society, we have claims upon the government equally as strong, if not stronger, and if, in the spirit of concord, unity, and benevolence, we renew and continue our efforts, we shall ultimately succeed.

I remain, Sir, your obedient servant,  
Hull, July 3rd, 1866. HENRY GATES.

TO THE EDITOR OF THE CHEMIST AND DRUGGIST.

Sir,—As your reporter was not present at the last meeting of the Executive Committee, I presume the members of the United Society will not be enlightened as to the proceedings on that occasion. I will, therefore, thank you to receive the following statement relative to the printed address which I had declared my intention to produce previous to the Annual Meeting. The Secretary on that occasion did not present himself, and his son, Mr. C. F. Buott, protested against the production of the document in his father's absence. Several independent members also fearing that its publication would be seriously detrimental to the Society, I consented to a Sub-Committee being formed, consisting of Messrs. Baumgarten, Betty, King, Pass, Venman, and Wellspring, who are to consider the best method of dealing with it.

The Society is indebted to you for so clearly describing the position of parties in your last number, and I earnestly hope the effect produced on the Birmingham members, will be general in the provinces. I am hopeful that other districts will be represented by delegates at our Annual Meeting, and

that such delegates will fairly give their support to that side they agree with.

The resolutions of which notice has been given may be ranged under two headings,—“For the interest of the trade,” “For the benefit of the Secretary.” It is for the meeting to decide whether they wish to sacrifice their own position for the maintenance and position of one, who will not content himself with his appointment as a paid official, but requires to be “something more than a mere Secretary.”

Nothing more clearly describes the intention of the minority than the notice,—To impeach a certain member, for organizing a conspiracy to compass the dissolution of the Society. This ridiculous notice is the key to the whole question. Mr. Buott, and one or two of his adherents, whose personal regard for the individual to be impeached is always conspicuous, have possessed themselves of the notion,—That to suggest anything opposed to the wishes of the Secretary, or his prosperity and judgment, is treachery to the Society. Whereas the majority fail to comprehend that Mr. Buott *is the Society*; or that his interests are clearly those of a druggist; or that he is more than one paid to carry out the wishes of the Executive Committee. The quarrels and dissensions of late have arisen, not from a desire of men leagued together in commercial undertakings to sell the Society, but from their wish to see the trade benefited by the existence of a Society, established five years, and powerful enough to represent the druggists' requirements, if guided with moderation and urbanity. They desire what they have long fought for, *self-government*, and not the dictation of one, who if he formerly brought druggists together, is doing his best now to sever them.

A certain sympathy is felt for the Secretary, and none have been more ready to do justice to his ability, his energy, and his past services than I myself and those men he now deems his opponents. We do not want to sacrifice Mr. Buott, but we do want him to understand that his duty is to act according to the wishes of the Executive Committee. Let him do his duty and he will have no cause to complain.

It is with great hesitation that I now touch upon a subject which before I have never condescended to notice, as personal business matters should not be mixed up either with political or charitable pursuits. But the chief attack against the majority—an attempt to deprive the Committee of the services of good active men—is to be upon the plea, that their business associations render them unfit to act as representatives of the trade. This absurdity, unfortunately, comes from a quarter where some personal soreness may exist, and will be readily understood. As regards the issue of the Annual Meeting I have no fears. I am satisfied that the views I have advanced upon trade matters will be supported by the provincial district associations, and the minority, which for a long time have done nothing but create confusion and introduce personalities, will have to retire.

I am, Sir,

Yours obediently,

JOHN WADE.

July 10th, 1866.

TO THE EDITOR OF THE CHEMIST AND DRUGGIST.

Sir,—We, the undersigned members of the United Society, present at the last meeting of its Executive Committee, held on the 7th of June last, wish through you to express our surprise and indignation at the conduct and bearing of the majority of the Committee, principally composed of Directors of the Drug Company.

Their violent opposition to the working officer of the Institution, and the systematic, but frivolous exceptions, taken to every petty detail, evidently showed that they had more at heart the discomfiture of the Secretary than the business or interests of the Society.

We trust that you will insert this as a matter of common justice, the more so, as to our great astonishment we find that an editorial attack has been made by you in the last number of the CHEMIST AND DRUGGIST, supporting a charge made by Mr. Wade against the Secretary in the same number. In making this charge, Mr. Wade violated an engagement entered into by him, in our hearing, and known to you, that no allusion should be made to the subject in the following number of the journal, so that the Secretary might be able to issue his defence, simultaneously with the appearance of the charge.

The whole question will be brought before the annua





meeting to be held on the 19th proximo, in face of which, we consider, that an unjust as well as an ungenerous attempt has been made to prejudice Mr. Buott in the estimation of the members of the Society, and to obtain from them pre-judgment of the case.

We have only to add that our motive in attending the Committee meeting was as independent members of the Society, to judge for ourselves of its proceedings.

WILLIAM A. YEATS, 254, Goswell Road.

EDWARD ALLENBY, 202, Caledonian Road.

AMBROSE W. WARDEN, 202, Caledonian Road

[We presume that Mr. Warden has but recently joined the Society, as we cannot find his name in the last published list of members.—Ed. C. and D.]

—“Aqua Pura” in a letter to the *Times* calls attention to the fact that Lord Palmerston’s promise to grant a pension to the widow of the late Dr. R. D. Thomson has not been fulfilled by Earl Russell. For several years Dr. R. D. Thomson analyzed, as your readers are aware, the waters of the metropolitan companies, and thus contributed to that improvement which leads us to hope that while cholera rages around us, the inhabitants of London will not again suffer as they did in past years. The waters of ten or twelve companies were analyzed twelve times a year, and were published in the Registrar-General’s weekly tables. These chemical analyses, which at the ordinary charges would have cost a large sum annually, were performed gratuitously. Professor Foster has suggested a plan for establishing a physical laboratory and engineering workshop at University College.

A GHOST STORY.—The following ghost story finds a prominent place in most of the Parisian journals:—A Russian lady of rank died lately in Paris, and her husband sent for a barber to arrange her hair as is usually done with the Russian dead. The barber took his young son with him, and, to punish the lad for some indiscretion which he had committed, brutally compelled him to read aloud “*Mon Voisin Raymond*” whilst the hair of the corpse was being dressed. The boy was terribly frightened at the task imposed upon him, and returned home almost delirious. But the cruel father’s turn was to come, and on the following night, and for many nights afterwards, did the appearance of the Russian lady sit by his bedside reading aloud to him improper novels. At last the poor barber’s black hair turned white under the well-deserved infliction he was undergoing; but soon after the fair Russian had exhausted her repertoire of light literature, and appeared to him no more, he was fortunate enough to discover a dye, which completely restored his hair to its original thickness, colour, and gloss, which he now sells at the extremely low price of ten francs the bottle. Apply to Mons. —, Rue —, No. —. Such is the last form of a French sensation advertisement.

IVORY.—The number of elephants that must be destroyed annually to meet the demand for ivory is absolutely enormous. It is stated on good authority that the cutlery establishments of Sheffield alone consume annually the ivory which is supplied by slaying more than 20,000 elephants; and every country must have its supply. The other sources from which ivory is obtained, the walrus, the narwal, etc., afford but an insignificant item in the supply, and as no other substance has been discovered or invented which can take its place, and as the demand is constantly increasing from year to year, it would seem that the race of elephants may before long become extinct. The best ivory known is that which comes from Africa, for though it is not so white as that furnished by the Asiatic elephants, it preserves its colour best, is most transparent, freest from cracks, and receives the highest polish. This is owing to the fact that the African ivory contains about equal parts of animal and earthy matter, while in the Asiatic the proportion of earthy matter is greater. One great source of the supply of ivory in Russia and the northern countries of Europe is the tusks of extinct species of elephants and mammoths, which are found in the banks of the rivers of Northern Siberia in a remarkable state of preservation. In very cold countries ivory of fossil elephants is preserved for ages. In our own country the fossil remains occasionally dug up are dry and brittle; but boiling in a solution of gelatine will supply the want of the original albuminous matter. So, on the other hand, by dissolving a portion of the earthy matter, which is one of the principal ingredients, ivory retains its

tenacity, but becomes exceedingly flexible. It is thus prepared for making surgical instruments. What will supply the place of ivory when the race of elephants is destroyed we cannot tell, but ingenuity is already at work to furnish a substitute, and is stimulated by the offer of large rewards. A short time since a reward of 5,000 dollars was offered in this country by parties interested in the manufacture of billiard balls, for a substance possessing the same qualities in about the same proportions. Ivory has the elasticity which adapts it to this purpose, but as it is affected by dampness and expands unequally according to the grain, it is found that the balls do not retain their perfect sphericity in all states of the atmosphere. For this reason, and on account of its increasing scarcity, some other substance is in demand. Vegetable ivory, so-called, is used in making many articles, but it is of comparatively little value. There seems to be more hope that the requisite material will be obtained from some compound of india-rubber or gutta percha than from any other source.—*New York Journal of Commerce*.

THAMES WATER.—It is very certain that the water abstracted from the Thames is unfit for dietetic purposes, and equally certain that the abstraction is a terrible injury to the river. Inorganic impurities can be no harm, or at least are likely to be beneficial, provided they consist of only the ordinary sulphates, carbonates, and phosphates. The worst that can be said about them is, that they occasion a waste of soap. But of organic impurities the least that can be said is that they are pernicious, and it can be no exaggeration of the truth to say that they are dangerous. It is simply absurd to suppose that organic impurities and the acids resulting from their decomposition are removed by any filtering process. Matters held in suspension, and generally all mechanical admixtures, may be entangled and precipitated on a filtering bed, but matters that have undergone solution accompany the fluid, changing from mild to deadly degrees of poison, and spreading the germs of disease wherever the water containing them is applied to dietetic purposes. A return to the general and primitive custom of drinking cold water, would no doubt decimate the population of London; it is only because nearly all the water consumed in the form of beverages, and associated with food, has been subjected to high degrees of heat, that we are not generally cognizant of the poisonous character of the waters supplied to the inhabitants of London. The fact that water-drinking is regarded as a dangerous custom is by no means creditable to either our science or our morality. We cannot secure a good draught of the best of all beverages, and, as a corollary negative, we cannot praise ourselves as patterns of sobriety.—*City Press*.



In the market for Chemicals the business done has been quite of a retail character—the continued distrust in business owing to the excessive rate of interest charged by the bank and bill brokers, causing all parties to operate with extreme caution and although in many cases holders would submit to even lower rates to finish up parcels, buyers even show more reluctance to purchase, and the business of the month has been only for actual and immediate wants. The last sales of Tartaric Acid were at 1s. 3½d. to 1s. 4d., and Citric at 1s. 10½d. Oxalic is also lower, a few small sales made at 11d. to 11½d. Chlorate of Potass quiet at 13½d. to 14d., and Sul Acetos 13d. to 13½d., also Bichromate 5½d. to 6d. Prussiate of Potass continues dull at 13d. to 13½d. In Iodine more doing, and the market is better, last sales made at 7½d., and now 8d. asked. Quinine is steady, and rather more doing. Pellitiens 4s. 8½d., and English 5s. 1d. Cream Tartar is lower, last sales made at 84s. to 85s. A good business done in Sulphate of Copper for export at 25s. to 27s., according to quality. Sulphate of Ammonia is better at 11s. to 11s. 6d. A fair business has been done in Alum at £7 10s. to £7 15s. Soda Crystals are better, last price paid was 130s. ex ship, and a parcel all faults at 120s. Ash is lower, business done at 2½d. ex ship. No sales in Muriate of Potass, prices nominal at 8s. 6d. to 9s. ex ship. Bleaching Powder is steady at 15s. 6d. to 16s. Flour of Sulphate is





