Fatal Cases.—1. The patient was a child, aged 8, who had suffered from chronic laryngitis for four years. He was not seen till three days after first complaining of sore throat; there had also been dyspnoea for two days. The submaxillary glands were enlarged; there was a white patch on and behind the left tonsil, and the throat was dark and oedematous-looking. The dyspnoea was slight, the temperature 102° , and the pulse 130. Next day the patch had spread to the other tonsil and the back of the pharynx, and there was urgent dyspnoea. The pulse was 145, the temperature 102° , and the respirations 56. Twenty c.cm. of antitoxin were injected, and tracheotomy was at once performed. In the evening the patient's condition was very satisfactory; the temperature had fallen to 100.6° , and membrane was being ejected without difficulty; 10 c.cm. more antitoxin were injected. The case went on satisfactorily till the following evening, when dyspnoea again supervened, and several hard plugs were removed from the inner tube; the wash-leather appearance of the membrane had given place to a white colour. The child died of the increasing dyspnoea a few hours later.

II. The patient was a girl aged 2½, who complained of sore throat, and was found on examination to have a large patch of membrane on both tonsils; the temperature was 100° , the pulse 122. The membrane rapidly spread to the larynx, the submaxillary glands became enlarged and tender, and the patient died of asphyxia before antitoxin could be procured. This case was complicated by whooping-cough.

III. The patient was a boy aged 11, who was attacked with sore throat and vomiting; on examination the throat was found to be congested, with three small patches of membrane on the tonsils; the pulse was 110 and the temperature 99.6° . The condition remained much the same for three days; 10 c.cm. of antitoxin were then injected, and the following day there was marked improvement, the submaxillary glands being softer and painless and the patches having disappeared. Ten c.cm. were again injected, and in twenty-four hours the patient was practically well, the pulse being 80, the temperature 98° , and signs of laryngeal involvement absent.

IV and V. Two more children, both of whom had whooping-cough, were attacked with dysphagia and enlargement of the submaxillary glands. Both rapidly recovered on the injection into each of 10 c.cm. of antitoxin.

Mr. Flynn states that the treatment of these cases was attended with considerable difficulty, the family living eight miles in the bush, with only the mother to attend to them. The antitoxin cost seven guineas for three 30 c.cm. tubes (initial cost 5s.). The outbreak occurred in a very swampy district in the dry season following very heavy rains. Mr. Flynn attributes it to drinking well water, which is practically sootage water from the rains. The serum was obtained through Dr. Tratman from the British Institute of Preventive Medicine.

XXXIV.—THOS. FORREST, M.B., C.M., L.F.P.S. Glasg.*
Physician to the Victoria Infirmary and Dispensary, Glasgow.

One Case: Recovery: Bacteriological Diagnosis: Exanthem.—The patient was a well-nourished female child, aged 1 year 11 months, who was first seen after being feverish for two nights, during which she was breathing heavily. The voice had been hoarse for a day and she had vomited once. On examination small patches of membrane were seen on both tonsils; the breath was offensive, the temperature 101.4° , the pulse 140, and the respirations 32. The submaxillary glands were large and the child very restless; 13 c.cm. of antitoxin, supplied by the British Institute of Preventive Medicine, were injected. Next morning the child was dull, the membrane had spread over both tonsils, the uvula, and the back of the pharynx, and a blotchy rash had appeared on the trunk. Next day she was improving and the membrane clearing; 10 c.cm. of antitoxin were injected, and the temperature rose from 99.6° to 100.6° , but soon fell again to normal. A few hours after the injection a pimply rash appeared. A day later the throat was nearly free from membrane, and recovery was only interrupted by an urticarial rash appearing on the seventh day after the first injection and lasting two days. The diagnosis was bacteriologically confirmed by the Clinical Research Association. The only other treatment was the administration of a mixture of sodium hyposulphite and potassium iodide internally, and a salicylic spray to the

throat as long as the membrane persisted. No paralysis followed.

Dr. Forrest instances the rapid cleaning of the throat after the second injection and the absence of any bad symptoms while the membrane was covering the fauces as exemplifying the value of the antitoxin.

BRITISH MEDICAL JOURNAL REPORTS.

REPORT ON A PRELIMINARY INVESTIGATION OF SOME TINNED EXTRACTS OF MEAT FOR THE PRESENCE OF LEAD.

By WILLIAM MURRELL, M.D., F.R.C.P.,
Lecturer on Pharmacology and Therapeutics at the Westminster
Hospital.

SOME months ago a well-known physician informed me that he was suffering from lead poisoning as the result of over-indulgence in a popular meat extract put up in tins. His account was that having to lecture to a large class of students he experienced the necessity for taking some easily digestible sustenance, and being averse to the use of alcoholic stimulants, he took daily for some months either during or immediately after his lecture a spoonful of a certain meat essence which he obtained in tins.

After a time he noticed a difficulty in writing, and found that the effort of transcribing even a single page of manuscript was a source of inconvenience. This rapidly increased, so that at the expiration of a few months it was with the greatest difficulty that he could write even an ordinary letter. Thinking that in all probability he was simply run down he decided to try what change of air would do, and retired to his country house.

One morning whilst shaving in the bright sunlight, he happened to look at his gums, and discovered the characteristic blue line of lead. He at once placed himself under treatment, and all other sources of the ingestion of the lead having apparently been eliminated, he came to the conclusion that the tinned meat was the cause of his trouble.

He asked me to look into the matter, and to test not only the particular preparation he had employed, but other tinned foods for the presence of lead. He placed at my disposal a tin of the extract he had been in the habit of using, but this it was determined not to touch until certain other investigations had been made. As a preliminary step I obtained from a retail chemist specimens of all the tinned meat essences and extracts he had in stock. He was not able to tell me with any approach to certainty when they were obtained from the various wholesale houses, but he volunteered the statement that as the sale was pretty brisk, they probably had not been kept long.

Feeling the necessity for absolute accuracy in a matter of such delicacy, I obtained the co-operation of my colleague, Dr. Wilson Hake, Lecturer on Practical Chemistry at the Westminster Hospital, by whom the following examinations were made:

No. 1.—The first specimen examined—the names of the makers are purposely omitted—was in a tin cylinder measuring $1\frac{1}{2}$ by 2 inches and fitted with a soldered lid with a key for opening it. It contained 84 grammes of light-coloured mobile jelly. Lead was present in the solder, but none could be detected in the preparation itself and none in the washings with hot water from the interior of the tin.

No. 2.—The second preparation was contained in a tin measuring $1\frac{1}{4}$ by 2 inches, and soldered round the middle. It weighed 113 grammes, and was a gelatinous and rather stiff material. Lead was detected in the solder, but none in the preparation itself and none in the washings from the tin with hot water.

No. 3.—This was in a tin cylinder with soldered lid and key, and consisted of 100 grammes of gelatinous material. Lead was again detected in the solder, but not in the preparation, which was slightly acid.

In all these testings a considerable quantity of material was employed—from 10 to 50 grammes—in each case, and

various tests were employed. In none of these specimens could any reaction be obtained with sulphuretted hydrogen by direct treatment, by partial incineration and extraction with nitric acid, or by complete incineration exhaustion with nitric acid nearly neutralising and adding sodium acetate.

As a control experiment, lead was added to No. 1 and No. 2 in the form of the acetate in solution in the proportion of one part of lead to 10,000. The preparations when tested gave the usual reactions.

In the next experiment a portion of No. 1, after decomposition had set in, was left for twenty-four hours in contact with a strip of metallic lead, but on examination it failed to yield any reaction.

Dr. Wilson Hake then instituted a series of experiments with the view of estimating the delicacy of the different tests for lead employed, and arrived at the following results:

Reagent.	Percentage of Lead.			
	1 in 1,000	1 in 10,000	1 in 100,000	1 in 1,000,000
H ₂ SO ₄ ...	Copious ppt.	Distinct ppt.	<i>Nil</i>	<i>Nil</i>
H ₂ S ...	" "	Deep coloration	Visible coloration	Just visible
K ₂ CrO ₄ ...	" "	Copious ppt.	Visible ppt.	Turbidity
K. I....	" "	" "	<i>Nil</i>	<i>Nil</i>

The delicacy of the reactions was much affected by nitric acid, less by acetic acid, and least of all when the preparation was neutral.

The final examination consisted of the investigation of the special tin obtained two years previously direct from the makers by the physician to whom reference has been made, and this was subjected to a most careful analysis. The contents of the tin weighed 150 grammes, of which 100 grammes were used. The composition of the preparation was—water, about 90 per cent.; meat extract, 10 per cent.; ash, 1.3 per cent. After a rigorous search conducted by the light of the experience gained in the former investigations, the preparation was found to be free from lead.

THE BATTLE OF THE CLUBS.

UNITED ACTION AT LINCOLN.

We learn that at a meeting of the medical practitioners of Lincoln held at the Lincoln General Dispensary on March 30th, a series of resolutions were adopted defining the nature of the relations which should exist between the medical profession and medical clubs.

The resolutions were adopted unanimously, and were signed by all the medical men practising in Lincoln, including the four medical officers to the two medical institutes in Lincoln.

A guarantee fund has been started, and considerably over one hundred pounds has been promised already.

We, the undersigned medical practitioners in the City of Lincoln, have agreed that the following rules and scales of fees ought to be adopted in all the medical clubs under the Friendly Societies Acts and in all medical aid associations:

1. That no one shall be entitled to medical attendance whose income from all sources shall exceed £2 per week, nor shall anyone be so entitled whose rental shall exceed £20 per annum.

2. Members whose income exceeds £1 per week shall pay for medical attendance on themselves at the rate of 4s. 4d. per annum, for attendance on their wives, 5s. per annum, and for attendance on each child, 4s. 4d. per annum, but only four children shall be charged for in any one family.

3. Members whose income does not exceed £1 per week shall pay for medical attendance on themselves at the rate of 4s. 4d. per annum, for attendance on their wives 4s. per annum, and for attendance on their children 4s. per annum.

4. Members of juvenile clubs shall pay for medical attendance on themselves at the rate of 4s. 4d. per annum.

5. That extra fees shall be charged as follows: Dislocations, fractures, and major operations as allowed for by the Local Government Board: Minor operations, 5s.; extraction of teeth, 1s.; confinements, 10s. 6d.; operative midwifery, 15s.; vaccination, 1s. 6d.; with calf lymph, 2s. 6d.;

consultations with another practitioner, 5s.; examination previous to admission, adults, 2s. 6d., juveniles, 1s.; certificates required by members for other clubs, 1s. each certificate.

6. That the medical officers shall receive the whole of the above fees after the deduction of the legitimate expenses.

7. That three months' notice on either side shall be required to terminate the engagement of any medical officer.

8. It is strongly recommended that the medical officers of these societies should be *ex-officio* members of the Committee of Management.

We further agree and declare that we will not accept office nor continue in office as medical officer to any friendly society or medical aid association which does not adopt these principles.

We also agree and declare that we will not meet, in consultation or otherwise, any medical practitioner who accepts office to any of these institutions which have not adopted these principles.

In the event of the dismissal of any medical officer on account of his acting in agreement with these decisions we undertake to use our best endeavours to get such officer reinstated, or, failing that, to do all in our power to secure for him another appointment.

(Signed)

E. MANSEL SYMPSON.
GODFREY LOWE.
EDWIN C. PALMER.
C. H. HOSKINS-ABRAHAM.
F. BASTOW COOPER.
FRED. G. GENNEY.
L. BEW TODD.
D. J. G. WATKINS.
C. M. DAVIDSON.
A. P. RUSSELL.
C. HARRISON.
JOHN T. COLLIER.
B. MCFARLAND.
G. H. MOUNSEY.
F. J. MASON.
F. C. P. HOWES.
W. H. B. BROOK.

DAVID JOHNSTON.
FRED. S. LAMBERT.
G. M. LOWE.
P. W. YOUNG.
H. EAST.
A. DEAN ROBERTS.
E. WHITWELL.
WM. JNO. MCDADE.
W. J. CANT.
GEO. MITCHINSON.
J. STITT THOMSON.
T. H. WHITE.
WM. O'NEILL.
C. BROOK.
ALBERT LOUIS PEACOCK.
F. H. ATKINSON.
W. A. CARLINE.

STIRLING, KINROSS, AND CLACKMANNAN BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

At a meeting of this Branch, held at Larbert on March 24th, the report of a Committee on the relations of medical men to medical aid associations, friendly societies, and clubs was presented. After discussion the following resolutions were agreed to:

A. *Medical Aid Associations*.—That it is derogatory to the dignity of the medical profession for any of its members to become medical officers to any medical aid association.

B. *Medical Officers to Friendly Societies*.—1. That per adult member no smaller fee should be accepted than 2s. 6d. per annum. Members to obtain their own medicines. 2. That in every case a minimum fee of 1s. 6d. should be paid for the examination of each adult candidate, and that juveniles should be charged the same as adults.

C. *Medical Officers to Clubs*.—1. That all first visits to club patients attended between the hours of 7 P.M. and 7 A.M., the call for each having been received between these hours, should be charged as private visits unless visits are for accidents to members while at work, or for sudden severe illness requiring urgent attention. 2. That the fee for attendance on the accouchement of the wives of members of clubs should be the same as that received from private patients.

It was resolved further, on the motion of Dr. Smith, seconded by Dr. Ronald, to forward these resolutions to all medical men in the district of the Branch, to invite their consideration of the subject, and to request them to confer with the Branch at a meeting in autumn for discussion of these resolutions and any amendments which may be proposed.

DEATHS UNDER ANÆSTHETICS. ✓

CHLOROFORM.

DR. W. MURRAY (house-surgeon to the Deaconesses Hospital, The Green, Tottenham) has favoured us with the following report of a case of death under chloroform, which occurred in that hospital on March 19th. The patient was a delicate-looking girl of 10, suffering from enlarged cervical glands, those on the right side having commenced to break down. No tuberculous history could be ascertained; her heart, lungs, and other organs were normal, and she did not appear unduly frightened when the chloroform was being administered. The chloroform (Allen and Hanburys) was given on an Esmarch's inhaler from a drop bottle. When 5jss had been given she was under, and the operation was about to commence, the