EAST AFR. PROT 15220 Selfield 318 Subaland Transit a Transchipment Regis Saturd report on proposals of Hohan In g. Fraker. lopy to the Fo with uper to 70. + ark then to wester whether the Italian fort come to the modifies proposed " from: 2 - 5 1 the deep; say with regard to price & that the for " effection of fines to with the be a very another me . that he that that it will italy to the States for - + copy it subsequent Paper. John 1 = to the for ghe infa 27.9 A- J-R. acome (29/10/14 30.14

Whilehair and Draws a relang of the or by 220 8 2250 (with feer), I have proffer for you court that the scale should be find at trooty 620 to 7500; or forther I was be place to the my? Shetten you again that it wil be equitable that the Mornhant should be eland & new the fee. who his Kinkham now le ceive, Men the latter is absent porther ou prany then warm is not purposing Mr Notes of his opice. by there badd that it prem turns way repetrable that the analytical Laboratory god be closed som when the Kritham comes on hear, + to Enguire whether there is us M.O. who can be detailed to every on the work trung this for

## went out to Nairobi!

- In support of the sources any mention
- that a few months ago the verlage Hesenfore
- Laboratories, Chartum, advertised for
- an Assistant Chemist at 2 500 p.a., and
- at the present mement the Muktesar Laboratories
- \* India, are advertising for a Chemist at E 640
- \* Fleing to 2 960 p. a. Although it would make
  - my position as Government Analyst somewhat
  - m difficult, I am of opinion that a professional
  - " chamist should not be appointed at a lower
  - and reteri-
  - " nary officers, even if one could be secured
  - " for less. A feeling of dissatisfaction would
  - " inevitably result from a position, which
  - could not fail to impair the officer's
  - " usefulness".

I have the honour to be,

Your obedient servant,

AD Miles

Principal Medical Officer

7/317

20th March

1 4

Sir,

# Ref: Sec. No. 6935 4/20.3.14.

I have the honour to submit the following remarks.

by Mr. Kirkham as requested by your above quoted memo:-

- The qualifications and experience which
- would be looked for in candidates for this
- " post will depend largely upon the salary
- effered. I am strongly of opinion that only
- " an accredited member of the profession of
- A second
- " Consulting and Analytical Chemistry should be
- appointed. University graduates possessing
- " the usual theoretical knowledge of chemistry,
- " but who have not obtained the professional
- " qualification, can be obtained for 2 300 p.a.
- " but I am informed that professional chemists
- " are now commanding better salaries. In corres
- " pondence with the Registrer of the Institute of
- Chemistry I asked if an Associate with a little
- \* experience could be secured for 2 300 £350
- with house and pension. His reply, deted
- 5th, witime, states:-

'It may be rather difficult to obtain men at the price, for the value of Associate has gone up considerably sin-

vou

Hen. Chief Secretary,

Nairobi.

#### FAST AFRICA PROTECTORATE.

Particulars of the Office of ..... Asst. Covernment Analyst

in the ... medical Department

Duties of Office and qualifications required ABBINTON'S to Govt/ Abelyat a for their performance. an accredited member of the

profession of Consulting and inalytical Chemistry.

2. Salary of Office.

Vide letter No.7/317 of Mar 20th 1914 attached.

Allowance, quarters, and other circumstances affecting the value of the Office.

Free quarters or an allowance in lieu.

Nature, number and account of securities required.

Hone

Whether free passage is provided for person selected and his family.

Free let class passage only for person appointed.

General particulars regarding accommodation, furniture, &c , for information of candidate.

Furniture allowed: - I bed o es mattress 2 pillows and mosquite washitand dressing table, cheirs dressors, daing table, 4 chairs dining room 2 loungs chairs, 1 1 commode, 1 set of bed room or

...April 1914191...

A Rod W. House

A. D. milno Principal Medical: Officer Head of Department.

Natron. Printed by the Unet, Printer, Nairobi -15-2-13 -5,00

INCLOSURE PMA 42

29/608/1.

In Despatch & 3/6 . april both 19/4

P.M.O's Office.

Nairobi. 15th. October, 1913.

In reply to your No. 6935 of 7th instant and endergements. I have the honour to state that the appointment of an Analyst to undertake the regular analysis of the cattle dips is so important, that unless one is appointed I should imagine the scheme would have to be abandoned on account of the very grave risk of poisoning or the dips becoming noneffective through ignorance of the strength of the solution used.

2. I have made provision in the Estimates for the Laboratory of 2 Assistants for Mr. Kirkham in ignorance of the necessity of more help being required. The analysis of dips will occupy one man's whole time, and I am unable to suggest handicapping Mr. Kirkham's work by leaving him only one of the 2 Assistants asked for. I-therefore strongly recommend the inclusion in the Estimates of a third Assistant for this purpose at a salary of £300 per annum.

I have &c. &c.

Sd./-A.D.Milne. Principal Medical Officer.

HON: THE CHIEF SECRETARY. rough the Hon'ble the Treasurer) NAIROBI ..

COPY.

#### THE COOPER LABORATORY FOR ECONOMIC RESEARCH.

THE LABORATORY,
RICKMANSWORTH ROAD.
WATFORD, HERTS..
9th August, 1913.

V.H.Kirkham Faq.

Government Analyst,

Nairobi,

British Rast Africa.

Dear Sir,

I am very much obliged to you for the copy of your report No.241, but especially I think the Corollary is of interest. It is a point which is of importance, I think, in the question of the use of the Isometer, and equally, it sets one's mind at rest with regard to the emptying of baths.

Yours &c., (SD.) #. F. COOPER

a total arsenic and substracting the Arsenate found, by Prahium. But, for general purposes, the extraction with Chloroform is sufficient. The greatest troubs arises where dips have been prepared from the Sulphur compounds; some are made from Arsenic Sulphide. In that ease my own method is to take the acidified and extracted material, and add excess of Silver Nitrate, then Sob Carb, to be sure that all Arsenic and Arsenate is down. Filter off the pp. wash well throw in HCI and warm gently, filter and use the filtrate for estimation of Arsenate and ite.

The isometer is utterly useless for used baths where any exact figure is required. It will only give a rough idea. But that is another matter. The only point is that Iodine can not be used on any used bath without previous treatment.

Initd. W. F. C

### ANALYSIS OF DIPPING FLUIDS.

The samples are often so dirty that one sant entract owing to the formation of emulsion. My procedure then is as follows. Take large part, say 250 CC, add Silver Nitrate and shake add HCT, in excess and shake. The Silver Chloride absorbs all much and the liquid is workable. Filter off into measured flask wash pp. etc. and make up to bulk.

Take aliqut part, 50 or 100 CC, (I like to take a good amount as there is so much liklihood of error) in separating funnel. Extract with Chloroform, having made strongly acid, previously. The Chloroform sinks to the bottom so that there is no loss; also it does not interfere with Iodine titration. Often many extractions have to be made, to get it quite clear. It is necessary to get all oils, phenols, creosotes and urine substances cut of it. After that, an Iodine titration will give the per cent of Arsenite; and Uranium with cutside indicator will give Arsenate, sufficiently exactly.

I would observe that the greatest trouble arises from the presence of urine product Soil and dung are not so bad. Therefore it is never safe to rely on Iodine, without doing

· Land American

В

Stanley Hotel, Nairobi, 24th Tetrnary 1915

The Government Analyst.

Dear Sir,

I should be glad if would analyse a sample of dip for me. I send it in a dark whisky bottle marked. But I must ask you to use my method, as I know that the analyses of used baths are so difficult. I give details of this method. I can recommend it to you, as saving trouble. It is the outcome of much work, other used for extractions usually all right except that it floats on the top of the liquid. But some samples contain impurities which interfers with Todine titrations.

Yours faithfully,
Sd./-w.F.Cooper
Of the Watford Laby. for Economic
Research.

Roughly 109% to 2° 3 per 100 c.c.

Received on the 24.2.13.

Report No.172 of 28.2.1913.

operation as will appear from a perusal of the enclosed letter from Mr. W.F. Cooper, E.A. Who is one of the greatest experts at this branch of work, and it would be perfectly impossible to undertake the control of the dips in this country without the addition of a third assistant, the two already asked for being required to cope with the control of food and water supplies, agricultural and general work. I estimate that the systematic analysis of all the dips in the country would fully occupy one chemist.

I hope that this laboratory may be placed in a position to undertake this work as it is intended at an early date(if the necessary assistance is forthcoming) to carry out experiments in conjunction with the Agricultural Dept. upon the composition of insecticides and the collaboration of men engaged upon such similar work would be highly desirable.

If you consider that the standardisation and control of dips is necessary to ensure the success of the undertaking may I ask you to make representations in the proper quarter for the appointment of another assistant.

I have, &c., &c., Sd./-V.H.Kirkham Government Analyst. COPY.

Government Laboratory, Nairobi, 17th September 1913.

To the Chie? Veterinary Officer,

Sir.

I have the honourto invite your attention to the analyses of two cattle dips recently made in this Laboratory.

One dip which has been in use for two months was 25 per cent, below its proper strangth in arsenite, and another dip two weeks old was 10 per cent, below strength having regard to the relative amounts of soil in these two dips and to the information already obtained as to the effect of the majority of our soils upon arsenical solutions it would appear that the successful dipping of cattle in this country is confronted with a serious difficulty, viz., the maintenance of the dips constant strength.

Whether the above erratic figures are due wholly or in part to the precipit—ation of arsenite by the soil it is certain that standardisation and control of dips is necessary if they are to be successful.

Unfortunately the analysis of used dips is far from being a simple operation

effective to destroy the ticks, and that which is so strong as to be unsafe to use for dipping stock.

- that it will be necessary to analyse all dips at short intervals and inform the owner of the quantity of pure dip which should be added in order to bring the mixture to the standard strength.
- 5. It is essential that analyses of dips be made not only at short intervals but also constantly since the amount of soil and dirt darried into the dip by stock depends to a great extent on the condition of the ground and the weather.
- days that this extremely important point has arisen, to ensure the success of dipping I would ask that provision be made for an additional chemist as an Assistant to the Government Analyst and that for the year 1914-15 it be placed to the Veterinary Vote as I understand the Estimates for next year have already been submitted by the Heads of Departments.

I have &c., &c., Sd./-R. J.TORDY.
Chief Veterinary Officer.

CL O

16985

No.58/19/13.

In Deepar 4 2 316 of april 4 tt. 1814

9 MAY 14 Office of the Chief Veterinary Officer.

Nairobi.

18th September, 1913.

The Hon. The Chief Secretary, through the Hon. The Secretary, Nairobi.

I have the honour to enclose copy of a letter which I have received from the Government Analyst.

In a very large proportion of soils taken from the sites of cattle dips which have been submitted for testing with regard to affinity for Arsenic, it has been found that the Arsenic becomes fixed in varying degrees. It is, therefore, probable that on account of entering into combination with some constituent of the soil taken into the dips on the skins and hoofs of the stock the percentage of Arsenic is lowered, and the dip is rendered ineffective for destroying ticks.

3. It is imperative that all dips be mixed with the puncet accuracy since there is only a small margin between dip which is effective

there be due for long leave prior to being confirmed in his appointment. While he is on leave the Coverment Applytical Labelstofy; as it now exists, will therefore have to be closed down for six or seven months, though in cases of the utmost energency the Veterinary Assistant may be able to help.

I have the benour to be,

Your humble, obedient servent,

H. Corway Beyierd.

GOVERNOR.

11th November 1913.

- The real necessity for this appeintment is evident from the attached letters from the Chief Veterinary Officer and the Principal Medical Officer and I now enclose the usual form giving full particulars respecting the nature and incidents of the office. Although for the first year of his appointment his time will be fully taken up by his special veterihary duties, I gather from the Chief Veterinary Officer that in subsequent years his services will probably be partly available for other chemical analytical work and as it is apparent to me that the Government Analyst will most. certainly require some further assistance in a year's time I recommend that the new appoint. ment be made permanent and pensionable subject of course to the usual three years' probation.
- the refore be that the Assistant Analyst, although nominally an assistant to ar airkham will be entirely employed on the analysis of cattle dips and work connected therewith while ar Kirkham himself will continue to cope with all other analytical work to the best of his abilities. But we are confronted with the fact that Mr. Kirkham will have completed thirty

Police, Mining and Forestry Departments besides examining and reporting on samples and specimens sent to him for analysis by the General Public. He is thus accessarily in practice independent of direct control by the Principal Hed cal Officer although that officer has hitherto been regarded as his administrative chief. I consider that in future years it would be advisable to show the deverment Analyst's Department as a separate schedule in the Estimates.

3. When the various Heads of Departments had submitted their draft estimates for 1914-15 I found that both the Principal Medical Officer and the Chief Veterinary Officer had asked that assistant analysts should be appointed, the former asked for two assistants on representations by Mr. Kirkham that his work was increasing beyond his powers and the latter for one assistant in connection with the analyses of cattle dies. I found myself regretfully compelled to disallow the two assistants included in the redical estimates and as regards the Veterinary Assistant I decided that for 1914-15 the cost should be met from the special vote of 13,000 for the commencement of the schemes for the dipping of stock your approval of which was notified to me in your despatch No.984 of the

1841/3.

AST AFRICA PROTECTORATE.

No.815.

C. O. 16985 GOVERNMENT HOUSE,
NAIROBI,
BRITISH EAST AFRICA
April 4th, 1914.

Sir

I have the honour to address you on the subject of the provision of some assistance for the Covernment Analyst, Mr.V.H. Wirthall, in order that he may be in a better position to cope with the increasing calls on his time and that the necessity for closing down his Department during the periods of his absence from the Protectorate on leave may be obviated.

2. At present the Government Analyst is shown under the Medical Department in the Protectorate Estimates although his duties are of such a nature that it is not practicable for him to be directly subordinate to the Principal Medical Officer or any member of the Medical Staff. He performs chemical analytical work for the Medical, Agricultural, Veterinary,

Police,

THE RIGHT HONOURABLE

LEWIS HARCOURT, P.C., M.P.,

SECRETARY OF STATE FOR THE COLONIES,

DOWNING STREET, LONDON, S.W.

(1) v.f. & P.S. @ SR 50 /2 ml/ 116 Fm for + Jan Francis when the new man is selected. ald Lagra PL+ the half the staff should be ent lose from the Med Deft but Idefrecat cutty don't the arte of saleny profesed for a good man for less the f too to start Laque with the Diddien, & Idontice any objection to Markan £400 h £ 20 \$ £ 500 plus fees " witer of When he is there houstand Euro (france for the year, the ) by \$ 20 6 \$ 500, fles fees when I e we and not fut he kithou on hyper seed retogether Las 18.5-14 as proport by Nº Bottomley H- J.R. 13/F/14 atom (ph 15: 5:14

must apritent theorter troo ? ach - sepponede appt of an 28 (hours a) like a la. O. or V.O. apritant in permanent estable in that case first the years cost tothe met in 1914-15 from the the be on the fearly. this for street disposing scheme. fort this w? artuinty make his very that a salary of to 550 om parker "awkward" - until to to two we appen to be he had the competed our Got to pain his our salary! ategratic atomst of I will Why not at my rate try enterm to secure a soutable 2350/4 215 to 2200 / pensioncandidate in them terms. while she ho Kukkam senguire what (if any) feto himself hely select the man the agritant may sobert? when he cames have, if we have not executed in 4 APP getting anyone by them. add that syl sees we oby " to It seems time a guest porty proposal to exposite the analysis that the got analysti Labority rept. from the med. Dept. , if this shall be cloud from it all. will not led a difficulties with their Seeing the mal or triple nature of the analysis mais. out. [ ag Vet. + apric ] + suggest The is something to be said for that position might least be men under D. P. Ross making him a reparate dept. tend get How the present for angle of the Head by exparating the whole of at present he appears with the Laboration and dissens the diector of Laboratories as a tak dept. of the medical dept. as a new dept, mutuation alled Laborationes division. Director of Laboratorie,