

Revenue (1897) Department.

PRESS SERIES.

G.O., No. 634-635

DATED 27th July 1897

[Despatch Abstract.]

Lady Birds.

Considering it unsafe to apply for or introduce
— from Australia except under professional
advice and supervision, addressing the Govt
of India with a view to ascertain whether the
services of the Imperial Entomologist or any
other officer can be spared for carrying on
entomological investigations in this Province
and requesting the Honourable Mr. Hodgson to
ascertain and state whether the experiment
proposed to be conducted by Mr. H. A. Newpost
with the two varieties of — was made, and, if so,
with what result.

Letter to the Govt. of India on the above subject

BACK PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.

FURTHER PAPERS.

<i>enc</i> G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.
7534 957 77-11-15 1040 11-12-97	104851		15-9-97				

Revenue (1897) Department.

CURRENT No. 5250

From

The Hon. H.P. Hodgson,
~~Esquire~~, *mm*
 Botacamund.
 No.

Order

Dated 23rd June 1897

Received 23-6-97

Registered 23-6-97

Enclosures

Spare copies

SUBJECT.

Soliciting further help
 in the subject of the intro-
 duction of Lady Birds for
 the destruction of scale
 bugs.

Approved
25/6/97
18-5-97
Recd 6/7/97

BACK PAPERS.

G.O.	No.	Department.	Date.
-	351	Revenue	18-5-94

FURTHER PAPERS.

G.O.	No.	Department.	Date.

634 &
635

To

The Honble G. Stokes
As Secretary to Government
Revenue Department

23rd June 1894

PETITION



REVENUE DEPT

Sir

I have the honor to acknowledge, with thanks, receipt of G.O no 351 Revenue dated the 18th May 1894.

While thanking the Government for the interest they have already taken in the subject of the introduction of Lady Birds for the destruction of scale bugs, I would solicit further help in the matter.

From the letter from the Commissioner of Agriculture & Forestry in Honolulu, dated the 3rd March 1894, copy of which was forwarded with the 30th December reply, it is evident that the introduction of Lady Birds there has been attended by great success, & that both the red spider, & the scale bugs, have been completely held in check, if not entirely eradicated, by the introduction of their natural enemies, in the shape of various species of Lady Birds.

With this encouraging result before us, it seems clear that we have only to follow in the same footsteps to secure an immunity from the like pests, which have so long been a scourge to the Tea

a quinquennial tea ladybird wd do good in India - if it

of an entomologist chosen of an unvaluable

BACK PAPERS.

G.O.	No.	Department.	Date
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1881 and 1882.

To the Honorable P. B. Stewart
Of Secretary to the Hawaiian
Government

1882

I have the honor to acknowledge the receipt of your letter of the 18th inst. and in reply to inform you that the same has been forwarded to the proper authorities for their consideration.

Very respectfully,
Your obedient servant,
J. H. King

Enclosed for the Hawaiian Government are two copies of a report on the progress of the work done during the year 1881, and a copy of a letter from the Hawaiian Government to the Hawaiian Commission, dated the 18th inst. The report is in two parts, the first part containing a general statement of the work done, and the second part containing a detailed statement of the work done in each of the several departments.

The Hawaiian Commission will be interested to know that the Hawaiian Government has decided to establish a permanent office for the Hawaiian Commission, and that the Hawaiian Commission will be allowed to occupy the same.

2/

2/ *Coffer Planters in India.* 310

The assistance & advice of an experienced Entomologist would undoubtedly be invaluable in carrying out this work, but in view of the experience already gained, it does not appear to be essential, as certain *Coccinellidae* have already been proved to work successfully against the scale insects, & it therefore seems to me that with the assistance of government, experiments might at once be commenced, at a small cost, & with every hope of a successful issue.

On page 77 of the Hawaiian Planters Monthly Professor Kabele writes,

"The *Cryptolestes montoufieri* is in my opinion the most valuable lady bird introduced into the Islands"

& Mr. Marsden says in his letter

"If there are any of the *Dactylopus* present the *Cryptolestes montoufieri* will surely feed upon them"

It seems proved therefore that if we can introduce & establish this insect beneficial results are sure to follow, as Professor Kabele also says.

"The *Cryptolestes* beetle did equally well upon about a dozen species of *Coccids*"
These beetles were collected by the Professor

a quippen basin this lady bird wd of an entomologist chosen ph

G.O.	No.	Department.	Date.
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[illegible]

3/ in Australia; & Mr. Marsden says that Australia
is the nearest place from which they can be collected.
I should therefore ask Government to
communicate with the Government of Australia
with a view to getting consignments of this beetle
sent over to us at once. The best method of
packing them in transit is given by Mr. Marsden.
It is more than likely that Professor Swinhoe
received assistance in making his collection
from the Australian Govt. & that they could
find some there with sufficient knowledge to collect
& forward the right insects to us, if the expenses of
so doing are paid.

Should Government wish us to meet a portion
of these expenses, I will personally guarantee to
pay half the costs, & will make all arrangements
to receive & distribute the insects on arrival.

Ask the further assistance of Government because it is certain that an application from the Madras Government is more likely to receive attention than if it went from our Association, & also because the Government is one which, if successful, will benefit the country generally.

Regarding the employment of an
Entomologist, the success which has attended
the work of Professor Koehle is I deem it sufficient
proof of the value of such a person to agriculture

a guide per bairn this lady had wd of an entomologist choi ph

in the tea districts of Northern India have suffered & do suffer enormous losses, but Mr. Marshall tells us that Red Spider has been eradicated by the introduction of its natural enemy.

I am confident that this news would be joyfully received by the Tea Planters of Bengal, & I would suggest that copies of the correspondence be sent to the Govt of India with a view to ascertain what the Planters there would be prepared to do towards paying part of the cost of an Entomologist & I am sure that our Association would gladly join in paying a portion of such cost.

I shall lay the papers on this subject, before the United Planters of Southern India Association at the meeting which will commence on the 9th August, & communicate results to you.

In the mean time might I ask you to write & accept Mr. Marshall's offer, & to signify

4/

at large - I believe I am right in stating that the Foddy crops in the plains are at times very greatly damaged by an insect, & that there are lengthy papers in the Govt Office dealing with the subject, but suggesting no practical remedy in the end. It is more than likely that the insect in question has a natural enemy, which if introduced, would check it.

Red Spider is a pest from which planters in the Tea districts of Northern India have suffered & do suffer enormous losses, but Mr. Marshall tells us that Red Spider has been eradicated by the introduction of its natural enemy.

I am confident that this news would be joyfully received by the Tea Planters of Bengal, & I would suggest that copies of the correspondence be sent to the Govt of India with a view to ascertain what the Planters there would be prepared to do towards paying part of the cost of an Entomologist & I am sure that our Association would gladly join in paying a portion of such cost.

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In the mean time might I ask you to write & accept Mr. Marshall's offer, & to signify

14

Dear Mr. Webb,
 I have the honor to
 acknowledge the receipt of
 your letter of the 10th inst.
 in relation to the
 proposed new map, and
 in reply to inform you
 that the same has been
 forwarded to the
 proper authorities for
 consideration.

634

63-1-10

Lady Birds

*Revised data to the Hon. Secy. from Mr. REVENUE DEPARTMENT.
Hon. Sir Henry Bliss with reference to Mr. Remond's
C. No. 5250 of 97*

20. VII 57.

From the Hon: Mr H. P. Hodgson

The Hon: Mr Groce C.L.
 The Hon Sir Henry Bliss K.C.L.
 H.B. the Governor

Dated 23rd June 1897.

F O R O R D E R S .

flagged A

I agree with the Sec. that although we cannot help the Planters with money at all events this year, we will help them in every way we can. The Com^r of Agriculture & Forestry, Hawaii (I suppose America has got him in office) has been asked to find out whether he has returned from his visit to the United States, & can name any Entomologist who would come to India if the Planters asked him, & on what terms he wd come. It appears from the New York paper that Prof. Koebele for the "Cryphoninae Mantrouginis" has sent "from Sidney, U.S." ~~request~~ asks the papers from Hawaii sent to show that it is quite possible that ladybird wd do good in India - if it

With reference to
G.O. no 351 Rev: d^y 18th may 1897,
the Hon: Mr H.P. Hodgson sub-
mits his further observations
and suggestions in connexion
with the question of the intro-
duction of lady birds into this
Prov? and of the employment
of an Entomologist here.

2. Mr. Hodgson points out that the results of the experiments conducted in Hawaii as evidenced by the reports received therefrom are encouraging and expresses his opinion

(1) that to secure im-
munity from similar pests, ^{here} the
same methods have merely to be
followed,

(2) that the assistance
of an entomologist though
invaluable

invaluable is not indispensable as one of the natural enemies of the insect pests met with in this Part viz., Cryptolaelmus montezuma has already been found to work well in Hawaii.

(3) that experiments at a small cost may therefore be commenced here at once and a consignment of the Cryptolaelmus obtained forthwith from the Australian Govt. for the purpose, and

(4) that in Australia there are probably men who would for payment make the necessary collections.

He states that if so desired he would "personally guarantee to pay half the costs and will make all arrangements to receive and distribute the insects on arrival" and he adds that the intervention of Govt. in obtaining them is asked for not only because an application made by it would carry more weight without than one from a Planters' Assoc. but also because "the experiment is one which, if successful, will benefit

FOR ORDERS.

can live & breed in our little climates. We might ask the Govt. of New South Wales whether a collector could be engaged to collect these insects & be sure to select them & not others which might be injurious, & what the cost of small consignments (like those of Prof. Kitchin, - Mr. Mansel's description and he quoted) will be. The papers for Hawaii and he sent with 9. of 1. with the request that we may be told when we can expect a visit from the Imperial Entomologist. Mr. Hodgson and he informed that the Members here much he left to negotiate with the Members of the North as to sharing expenditure. He and also he told that we are unable to help the Members in the way of money at present but wish to aid him in every way we can. He and he asked whether he knows what cause of Mr. Newport's hope to get small consignments of Cryptolaelmus Montezumae & Rhyzobius Vernalis last April.

I think we might get as far as half the price for the lady-birds.

Japan, except that I don't see why we should go to America from Entomologist - but the little firm in the British Empire would. I should wish to India about the whole of the experiment.

with the Hon. Mr. Spencer's proposals, except that I mention with the Hon. Sir H. Blair that, if it be decided that an entomologist is to be got, we should get him from the British Scientific world, and not from America. The Govt. of India might be addressed about the entomologist, it being pointed out that, for the purpose in view, he should possess special knowledge; and that such a man would be of use to all India, and that the Govt. of India might pay for him.

I am inclined to think we might offer the lady-birds at once, and try and scrape together money (it can't be more than a few hundred rupees) to pay half their cost. If they succeed, the money, if even from a revenue point of view, will be extremely well laid out; and we do not do much to help the planting enterprise.

A.G.H.
19.7.97

benefit the country generally."

3 As regards the employment of an entomologist, Mr. Hodgson thinks that the success which has attended Professor Holbe's work is "sufficient proof of the value of such a person to agriculture". He also expresses it as his belief that there are papers in the Govt. Office showing the damage which are done to paddy crops by insects for which natural enemies may probably be found and that in northern India where the tea plantations are infested with red spiders the news of the discovery of any enemies of these spiders would be joyfully received. He suggests that copies of the correspondence be sent to the Govt. of India and that it may be ascertained whether the Bengal planters would be willing to contribute anything towards the cost of an entomologist and add that the South Indian Planter Association would gladly pay a portion of such cost. He thinks

that in the meantime the offer of the Coment. of Agri, Hawaii, to enquire about an Entomologist during his visit to the United States may be accepted so that there may be a man ready should his employment be decided on later on.

4. The above are the views and proposals of Mr Hodgson himself. He has not yet consulted the Planters Assocⁿ but proposes to do it on the 8th proximo and to communicate ^{the} results in due course. It may be presumed that the Association will agree with Mr Hodgson and ratify his proposals.

5. The points now for orders are

(1) whether in view of the danger of importing the wrong insect, a point on which the Hawaiian Coment. Land Considerable stress it is advisable to address ^{at once} the Australian Govt for a consignment of the Crypt-locinus referred to by the Hon Mr

Hon. Mr Hodgson and if so which Australian Govt is to be addressed

(2) whether the papers may be forwarded to the Govt of India and enquiry made as suggested by Mr Hodgson and

(3) whether the Coment. of Agri, Hawaii should now be ~~addressed~~ requested to make enquiries in the United States about a Competent Entomologist.

6. As regards the first point about Mr Hodgson it will be seen has promised to bear half the cost of obtaining the insects. But even if they are not likely to prove harmful when imported it is submitted that the information before Govt is so incomplete ^{it is not clear} that to which Australian Govt application should be made. Mr Hodgson may perhaps be asked whether he is able to furnish any definite information on the point. As regards the second point there does not it is submitted, appear to be the

No doubt, the Govt of New South Wales where Prof Kettle got the insects.

referred to by the Hon. Mr.
Stodgson as available in the
Govt. Office on the subject of
insects destructive to paddy crops
are apparently those already
mentioned in the note stitched
with G.O. No. 351 of 18th May
1897. The two important papers
on the subject are now flagged
C and D.

8th VII 97 On the question of an
Entomologist it may be here noted
that in July 94 the Govt of
India arranged a tour for
Mr. Cotes an entomologist
attached to the Indian
Museum. And Mr. Cotes
agreed to pay his expenses
during his tour in this
Presidency which was to
be over in 95-96. Vide
pages flagged together F. The
last that was heard of
Mr. Cotes apparently was
that he was to stop
in Assam for 4 months
of 95-96 vide 7 Aug 9. At this
rate of progress, if the order
provision is being addressed

124
It seems
certain that Mr.
Cotes has resigned
Mr. Cotes has
may perhaps
be asked what
has become of the
scheme of an
it is a long time since

to, it will be some time before
he reaches Madras. India might
submit to ask when he
this success (for Mr. Cotes
name no longer appear on the
list of the Indian Museum)
may be expected.

Wm
9/2/97

I submit that Govt. H. Cotes
all it can do and in the
introduction of suitable Ladybirds
and in obtaining the services
of an Entomologist to assist
the planter with advice as to
suitable species and as to the
best locations from which to
obtain them and how to import
them. But I am afraid that
the existing financial pressure
will prevent Govt. from
bearing any share in this
expense. If the Planter will
bear the cost of importing the
Ladybirds and of the salary
&c. of an Entomologist Govt.
might well then wish to
Australia or America on the
subject.

Wm
9/2/97

6311
27-7-97

Re: Lady birds

The Hon. Mr. Goss C.S.

The Hon. Sir Henry Bliss K.C.S.

For Orders

As the views of the Hon. members and the Governor do not agree on several of the points connected with the question of obtaining lady birds from Australia and the employment of an Entomologist the papers are recirculated for orders.

2 The Hon. Mr. Hodgson proposals, the orders of the Hms and H.C. thereon and the points on which orders are now solicited are shown side by side in the statement overleaf.

Wiley
22-7-97

B.M.
22-7-97

The Hon Mr Hodgson views and proposals	The Hon Mr Grose's Orders	The Hon Sir Henry Bliss's Orders	Dec. the govern Orders
(1) Competent collectors of insects are probably to be found in Australia	Enquiry may be made on this point	HM. agrees with the Hon Mr Grose	
(2) A consignment of Crypto- lepidi may therefore be obtained by this Govt at once from the Govt of Australia	The result of the enquiry above is to be awaited	do.	A consignment of insects may be obtained at once
(3) He will undertake to bear half the cost of obtaining the insect, the other half being borne by Govt.	The Govt cannot bear any portion of the cost but will render any other assistance	do	The cost would be small and the Govt might pay half
4 The Hawaiian Government may at once be requested to make enquiries in America about a competent entomologist	This may be done on behalf of the planters India should be asked when the Imperial Entomologist may be expected to come down to Madras	The Entomologist ^{one from the British Empire or the world} should be a Britisher and not an A- merican and India should first be asked about the matter before a reference is made to the Hawaiian Govt.	HM. agrees with the Hon Sir Henry Bliss
(5) no proposals are made about the cost of obtaining an ento- mologist but apparently Mr H. presumes that the Govt will share	The Govt. cannot undertake to bear any portion of the cost but will assist in other ways	HM. apparently agrees with the Hon Mr Grose	India must be asked to pay the cost.
(6) The papers may be sent to India with the request that enquiries may be made as to whether the N. Indian planters would bear a portion of the cost on account of the Entomologist	The papers may be sent to India but Mr Hodgson should him- self make the necessary enquiries referred to	do	HM. agrees with the Hon
	Mr Hodgson should be asked what he can do of his own power to obtain insects	do	

Points on which orders
are now solicited

Orders

Whether the enquiry referred
to may first be made

whether application should
at once be made for a con-
signment of the insects

Whether half the cost should
be borne by Govt

Whether the entomologist is to
be engaged by Govt independently
of the Imperial Entomologist
by the planters;
if by the latter whether Mr
Hodgson should be asked whom
they would prefer to have

who India should be asked
to bear the cost when it has
already got another officer em-
ployed on the same work

~~If the planters are to bear
the whole or any portion of
the cost, whether Mr Hodgson
should be asked to make the
necessary enquiries about the
views of N. Indian planters.
The orders are clear on
this point.~~

Hope to India in Entomologist

Yes.

Must wait India's reply.

India should be asked to
pay for the cost.

22-7-57

See (from orders)

Print
me first to
the Hon. Mr. Hodgson
29/7/97

Read again G.O. $\frac{351}{18.5.97}$
also cons. 5250 of 97

Order No. 634 of 27th July 1897.

In view of the decision
opinion expressed by the
Compt. of Adm., Hawaii, that
the work of searching for
and introducing the natural
enemies of insect pests "should
be entrusted only to a skilled
entomologist, one who has
made the life habits of beneficial
and injurious insects a special
study", lest "injury instead of
benefit might arise"; the
G. in C. considers it unsafe
to apply for or introduce lady
birds from Australia except
under the professional advice
and supervision of an expert.
If, when the services of such
an expert are procured, he
advises that a consignment
of these insects should be ob-
tained, the G. in C. will be ready
to take the necessary action in
the matter and to contribute
half the cost as proposed by

the Hon: Mr Hodgson.

The Dept of Entomology is, under existing orders, administered under 'Imperial' direction, a specialist being entertained in the National Museum at Calcutta to carry on investigations on behalf of all the Provinces in India; the Govt of India will ^{expressly} be addressed ^{with a view} for information as to whether the services of the 'Imperial' officer in question can be spared for ~~comparative~~ carrying on entomological investigations in this part and if not whether it will now be possible to appoint another officer for the purpose.

As the Govt observes that in the paper read by Mr H.O. Newport at the meeting of the Lower Pulney Planters' Association on 29th Feb 1896 he stated that he had ~~order~~ was having two varieties of ladybirds sent out to him from Australia and that on their receipt he proposed to experiment

with

With reference to the Hon Mr Hodgson's report that the Govt of India should be addressed ~~with a view~~ in order that enquiries should be made of the tea-planters ^{in Bengal} as to their willingness to share the cost of an entomologist with the planters of Southern India. ~~The Govt Hq. Mr E. C. W. observe~~ that it would be preferable if Indian negotiations were carried on directly ^{by the planters of} ~~the two associations~~ of planters concerned.

Indian India. Mr. G. H. S. Having regard to the public interest ^{benefit} which would probably result from the labours of such an expert the Govt will, however, be prepared to ~~be prepared to~~ is desirous of seeing one employed at an early date and as

6.8.14.97

To the Hon: Mr Hodgson
Dec. 30.7.97
Copy to the Board of Rev:
Supt. Govt Central Museum with
copy of G.O. No 2351 Rev. dy 18.5.97

No 351 Rev: dy 18th May 1897.
No 634 Rev: dy 27th July 1897

with them and to communicate the results obtained to the Association. The Hon Mr Hodgson will be requested to, state whether any further action was taken by Mr Newport in the matter and if so with what result.

The following letter will be despatched to the Govt of India

26.7.97
11/11/97
N^o 635-
The Secy to the Govt of India
Rev: and Adm: Dept
Sir,

Adverting to Mr MacLagan's Cir n^o 23/89 dy 31st Dec 1896 and the fourth of the Resolutions (on the Progs of the Adm: Conferences of 1893 and 1895-96) n^o 3/39-1 dy 20th March 1897, I am directed forward for the information of the Govt of India copies of a marginally noted Progs of a Govt embodying certain comop

that has passed between the Hon.
Mr. H.P. Hodgson, acting on behalf
of the planters of Southern India,
and the Comptroller of Agri, Ha-
waii, on the one hand and H.E.
the G. in C. on the other, re-
garding the feasibility of im-
porting into this Pres? Chap the
Chryptolaemus Montivagans and
other natural enemies of the
insect pests which now infest
the Indian plantations.

2. It will be seen that
the subject of the possibility of
destroying injurious insects by
the introduction of their natural
enemies has now for some time
been receiving the special atten-
tion of the Govt of Hawaii,
where the services of an expert
Entomologist, Professor Horbel, have
been engaged for purposes of carry-
ing on investigations and that
the experiments conducted by the
Professor have been so successful
that some of the pests ^{are reported to} have been
effectually rooted out from those
islands. The Hon. Mr. Hodgson,
whose view of the matter H.E.

in C is inclined to agree, ^{is very}
hopeful of meeting with similar
success if investigations on the
same lines are carried on in
India by an expert like Professor
Horbel, and he has suggested that
the Comptroller of Agri may be
asked to make enquiries in
America as to whether the ser-
vices of a competent man can
be engaged there for employment
in this country.

3. Mr. Hodgson evi-
dently expects that a moiety
at least of the charges to be
incurred in the entertainment
of an Entomologist ^{should} be
borne by Govt and has requested
that the planters of Northern
India may be asked whether
they ^{will be} are willing to contribute
a share. He has already under-
taken to bear half the cost if
this Govt will ^{above} apply for and
obtain a consignment of Chry-
ptolaemus Montivagans from
Australia and H.E. in C
has promised to take the ne-
cessary steps in the matter ^{and} ^{pro}

24.vii.97

26-287

50/2

Recd.

1897.

Regd.

Enclosures

Spare copies

G.O., No. 634, 27th July 1897.

JULY.

Lady Birds.

Considering it unsafe to apply for or introduce — from Australia except under professional advice and supervision; addressing the Government of India with a view to ascertain whether the services of the Imperial Entomologist or any other officer can be spared for carrying on the tomological investigations in this Presidency; and requesting the Honourable Mr. Hodgson to ascertain and state whether the experiment proposed to be conducted by Mr. H. O. Newport with the two varieties of — was made, and, if so, with what result.

GOVERNMENT OF MADRAS.

REVENUE DEPARTMENT.

READ—again G.O., No. 351, Revenue, dated 18th May 1897.

ABSTRACT.—Communicating to the Honourable Mr. H. P. Hodgson letter from the Commissioner of Agriculture and Forestry, Honolulu, furnishing information regarding certain points connected with the experiments made, in Hawaii, with lady birds for the destruction of scale bugs.

READ—also the following letter from the Hon'ble Mr. H. P. HODGSON, to the Secretary to Government, Revenue Department, dated 23rd June 1897:—

I have the honour to acknowledge, with thanks, receipt of G.O., No. 351, Revenue, dated the 18th May 1897.

While thanking the Government for the interest they have already taken in the subject of the introduction of lady birds for the destruction of scale bugs, I would solicit further help in the matter.

From the letter from the Commissioner of Agriculture and Forestry in Honolulu, dated the 3rd March 1897, copy of which was forwarded with the Government Order under reply, it is evident that the introduction of lady birds there has been attended by great success, and that both the red spider and the scale bugs have been completely held in check, if not entirely eradicated, by the introduction of their natural enemies, in the shape of various species of lady birds.

With this encouraging result before us, it seems clear that we have only to follow in the same footsteps to secure an immunity from the like pests, which have so long been a scourge to the tea and coffee planters in India.

The assistance and advice of an experienced entomologist would undoubtedly be invaluable in carrying out this work, but in view of the experience already gained, it does not appear to be essential, as certain coccinellidæ have already been proved to work successfully against the scale insects, and it therefore seems to me that, with the assistance of Government, experiments might at once be commenced, at a small cost, and with every hope of a successful issue.

On page 77 of the "Hawaiian Planters' Monthly" Professor Koebele writes:

"The *Chryptolæmus Montronzieri* is, in my opinion, the most valuable lady bird introduced into the islands."

And Mr. Marsden says in his letter:

"If there are any of the *Dactylopids* present the *Chryptolæmus Montronzieri* will surely feed upon them."

It seems proved therefore that if we can introduce and establish this insect beneficial results are sure to follow, as Professor Koebele also says:

"The *Chryptolæmus* beetle did equally well upon about a dozen species of coccids."

These beetles were collected by the Professor in Australia, and Mr. Marsden says that Australia is the nearest place from which they can be collected.

I would therefore ask Government to communicate with the Government of Australia with a view to getting consignments of this beetle sent over to us at once. The best method of packing them for transit is given by Mr. Marsden.

It is more than likely that Professor Koebele received assistance in making his collection from the Australian Government and that they could find some there with sufficient knowledge to collect and forward the right insects to us, if the expenses of so doing are paid.

Should Government wish us to meet a portion of these expenses, I will personally guarantee to pay half the costs, and will make all arrangements to receive and distribute the insects on arrival.

I ask the further assistance of Government, because it is certain that an application from the Madras Government is more likely to receive attention than if it went from our association, and also because the experiment is one which, if successful, will benefit the country generally.

Regarding the employment of an entomologist, the success which has attended the work of Professor Koebele is I deem it sufficient proof of the value of such a person to agriculture at large. I believe I am right in stating that the paddy crops in the plains are at times very greatly damaged by an insect, and that there are lengthy papers in the Government office dealing with the subject, but suggesting no practical remedy for the evil. It is more than likely that the insect in question has a natural enemy, which, if introduced, would check it.

Red spider is a pest from which planters in the Tea districts of Northern India have suffered and do suffer enormous losses, yet Mr. Marsden tells us that red spider has been eradicated by the introduction of its natural enemies.

I am confident that this news would be joyfully received by the tea planters of Bengal, and I would suggest that copies of the correspondence be sent to the Government of India with a view to ascertain what the planters there would be prepared to do towards paying part of the cost of an entomologist and I am sure that an association would gladly join in paying a portion of such cost.

I shall lay the papers on this subject before the United Planters of Southern India Association at the meeting which will commence on the 9th August, and communicate results to you.

In the meantime, might I ask Government to write and accept Mr. Marsden's offer, to enquire about an entomologist, with suitable experience, on his projected visit to the United States and to send the result. We may thus have a practical man ready, should it be decided later on to employ one.

ORDER—No. 634, Revenue, dated 27th July 1897.

Miscellaneous.

In view of the decided opinion expressed by the Commissioner of Agriculture, Hawaii, that the work of searching for and introducing the natural enemies of insect pests "should be entrusted only to a skilled entomologist, one who has made the life habits of beneficial and injurious insects a special study," lest "injury instead of benefit might arise," His Excellency the Governor in Council considers it unsafe to apply for or introduce lady birds from Australia except under the professional advice and supervision of an expert. If, when the services of such an expert are procured, he advises that a consignment of these insects should be obtained, His Excellency in Council will be ready to take the necessary action in the matter and to contribute half the cost as proposed by the Honourable Mr. Hodgson.

2. With reference to the Honourable Mr. Hodgson's request that the Government of India should be addressed in order that enquiries should be made of the tea planters in Bengal as to their willingness to share the cost of an entomologist with the planters of Southern India, His Excellency the Governor in Council would observe that it would be preferable if such negotiations were carried on directly with the planters of Northern India. Having regard, however, to the public benefit which would probably result from the labours of such an expert, the Government is desirous of seeing one employed at an early date and as the Department of Entomology is, under existing orders, administered under "Imperial" direction, a specialist being entertained in the National Museum at Calcutta to carry on investigations on behalf of all the Provinces in India, the Government of India will be addressed with a view to ascertain whether

REVENUE DEPARTMENT.

From

THE HON'BLE MR. G. STOKES, I.C.S.,
Acting Secretary to the Government of Madras,

To

THE SECRETARY TO THE GOVERNMENT OF INDIA,
REVENUE AND AGRICULTURAL DEPARTMENT,

Dated Ootacamund, 27th July 1897.

Sir,

Adverting to Mr. MacLagan's Circular No. 23—89, dated 31st December 1894, and
the fourth of the resolutions (on the

Miscellaneous.

Proceedings of the Agricultural Con-
ferences of 1893 and 1895-96)
No. 3—39-1, dated 20th March 1897,
of the Government of India, copies of
the marginally-noted Proceedings* of
this Government embodying certain
correspondence that has passed between
the Honourable Mr. H. P. Hodgson,
and the Commissioner of Agri-
culture, Hawaii, on the one hand and His Excellency the Governor in Council on the
other, regarding the feasibility of importing into this Presidency the *Chryptolaemus*
Montronzieri and other natural enemies of the insect pests which now infest Indian
plantations.

I am directed to forward, for the information of the Government of India, copies of

* No. 351, Revenue, dated 18th May 1897.

No. 634, " " 27th July "

acting on behalf of the planters of Southern India, and the Commissioner of Agri-
culture, Hawaii, on the one hand and His Excellency the Governor in Council on the
other, regarding the feasibility of importing into this Presidency the *Chryptolaemus*
Montronzieri and other natural enemies of the insect pests which now infest Indian
plantations.

2. It will be seen that the subject of the possibility of destroying injurious
insects by the introduction of their natural enemies has now for some time been receiv-
ing the special attention of the Government of Hawaii, where the services of an expert
entomologist, Professor Koebel, have been engaged for purposes of carrying on investi-
gations and that the experiments conducted by the Professor have been so successful
that some of the pests are reported to have been practically rooted out from those
islands. The Honourable Mr. Hodgson, in whose view of the matter His Excellency
in Council is inclined to agree, is very hopeful of meeting with similar success if investi-
gations on the same lines are carried on in India by an expert like Professor Koebel.
He has already undertaken to bear half the cost of a consignment of *Chryptolaemus*
Montronzieri from Australia and His Excellency in Council has promised to take the
necessary steps in the matter under the advice of a competent entomologist. The in-
tention of the Government of India to administer the Entomological Department under
Imperial direction having been declared, His Excellency in Council is not in a position
to express an opinion on the question of the necessity or advisability of procuring the
services of an expert independently of the officer now attached to the National Museum
at Calcutta. I am accordingly to submit the papers for the orders of the Government

of India and to enquire whether the Supreme Government will be able to spare, at any
near date, the services of the Imperial entomologist to conduct investigations in this
Presidency and, if this cannot be done, whether it will be possible to appoint another
officer for the purpose.

I have the honour to be,

Sir,

Your most obedient servant,

(Signed) G. STOKES,
Ag. Secretary to Government.

Exd. P. Seetharam

50 Copies.