M.R.O. 1—39,000—16-10-23.

MADRAS RECORD OFFICE.

Government of Madras.

Revenue DEPARTMENT.

G.O. No. 1532 Press ~~Mis~~

12-13

Dated 15 June 1869

Not to be folded or roughly handled

2/30

Proceedings of the Madras Government, Revenue Department,
1st June 1869.

No. 12. Read the following letter from the Honorary Secretary, Government Farm, to the Acting Secretary to Government, Revenue Department, Fort Saint George, dated Madras, 6th February 1869, No. 115 :—

With reference to my letter of September 17, 1867, No. 209, regarding the steam plough, and the Order of Government thereon of September 23, 1867, No. 2,222, I have the honor to forward copy of a letter to me, from the Superintendent of the Government Farm, on the same subject.

2. In my last letter, (paragraph 3,) I stated that the Committee hoped, at some future period, to be able to try the plough again. There not having been any one at the Farm capable of managing the engine and plough, nothing was attempted.

3. Soon after Mr. Robertson's arrival, I requested him to examine the engine, plough, etc., and report what should be done with it, where, and when it should be tried.

4. He has now sent in a very full report, entering into the subject in all its bearings, and the Committee think it best to forward the report, in order that the Government may judge whether, under such circumstances, it is advisable to try a plough admitted in England to be a failure.

5. The Committee fully endorse Mr. Robertson's opinions, and recommend that the plough be sent to the Public Works Stores, as many of the wheels, axles, drums, cogs, ropes, etc., etc., could doubtless be utilised for other machinery.

From Mr. W. R. ROBERTSON, Superintendent, Government Farm, to the Honorary Secretary, Government Farm, dated Sydapet, 22nd January 1869.

During a recent conversation, I stated to you that I did not consider it would be advisable to go to further expense in testing the capabilities of the steam ploughing-apparatus, now lying at the Farm buildings. Time did not then allow me to state the grounds upon which this conclusion was formed, so I avail myself of the present opportunity. Before speaking more particularly of the apparatus in question, allow me to give you a few facts regarding the history of this, (as Mr. Fowler calls it,) No. 4 Plan of Steam Cultivation.

2. I believe it was at the Leeds' Exhibition of the Royal Agricultural Society in 1861 that Mr. Fowler first introduced it into public notice. It was in obedience to a suggestion that had often been made, that as so many farmers were in possession of portable engines, steam ploughing would become much more general, if these engines could be adapted for steam cultivation at a moderate cost. Mr. Fowler fixed a clip drum, with the necessary gearing, upon a carriage, and arranged it so that it could easily be driven by any engine. At the Leeds' Show, as I have before stated, the new arrangement was prominently brought before the public. Mr. Fowler worked a small engine, and certainly got through a good deal of work, however the actual horse-power used was not ascertained. The engine was worked without its governors, and both it and the attendant laborers worked at a racing speed. The arrangement was at the best but a make-shift, and made little or no progress amongst practical men.

3. At the next Implement Show of the Royal Agricultural Society held at Newcastle in 1863 or 1864, I forget which, the steam-plough judges accurately determined the horse-power employed in the various competitions. Fowler then took 13·9-horse power to work a 3-furrow plough, similar to the one we have, on 8-horse power engine to work; and it must not be forgotten that he worked with one of the best engines he could procure, a first-class set of apparatus, and skilled laborers. I have personal knowledge of the ground he then ploughed, and consider it much freer soil to work than many soils the apparatus would be expected to cultivate in this country. Our

trials

engine was never built for steam ploughing; it is an ordinary portable engine, well suited for general Farm purposes, chaff-cutting, grinding, etc., but much too light for steam cultivation. Farmers, possessed of the necessary capital, have found it best to possess themselves of engines built specially for steam cultivation; and they unanimously agree in the advantage of possessing engines of 3 or 4-horse power more than the Agricultural Implement Catalogues recommend. They thus work with less waste of fuel and with less strain on the working parts of their apparatus. Engines built for steam ploughing are self-propelling, and in most cases remove all their ploughs, etc., without the aid of horses. To remove one engine and all its apparatus simultaneously would require at the least a dozen strong horses, or a score of large oxen; such a force could seldom be procurable.

4. If we had an engine of greater power, I do not think it would be advisable to attempt working the apparatus now at the Farm. The plough is only a 3 furrow, and of course will only perform seventy-five per cent. of the work a 4 furrow will do, while, excepting for fuel, it will cost as much for labor, etc. The expense of working a steam plough is so great, unless very great care is exercised, the experiment will result in a disastrous failure, and instead of promoting, will retard the cause of steam cultivation in this country. It is certainly very desirable that steam cultivation should be introduced into India; but attempting to introduce a system which I have already characterised as a make-shift, will not promote this end.

5. Steam ploughing is yet in a state of transition; probably we may have many changes before the best system is discovered; still practical men generally concur in attaching great value to the present system, *viz.*, the employment of two small engines instead of one engine, with the anchor and other cumbrous machinery.

6. I would respectfully advise that the engine we now possess should be retained, and used for general Farm work, and that the apparatus should be sold; half of the cost of engine etc., should thus be realised, and a set of the best apparatus and engines be procured for introducing steam ploughing into India.

No. 13. ORDER THEREON 1st June 1869, No. 1,532.

Miscellaneous.

IN 1865 a steam plough was received from England, and considerable expense was incurred in connection with it. The first trial of it was made at Oossoor under the direction of Colonel Thompson, Agent for Remounts, and a second by the Municipal Commissioners of Madras later in the year. Neither of these trials was however satisfactory, as the machine was shown to have been worked under certain disadvantages.

2. Early in 1866 the plough and apparatus were deposited at the Government Farm at Sydapet in view to its being again tried after the monsoon in that year; but unfortunately none of the farm fields were found suitable, and no person connected with the Farm Establishment was capable of managing the plough. In September 1867, however, the Farm Committee reported their intention of utilising the engine belonging to the plough by working by its aid a rice-huller, bone-crusher, and powerful bucket-pump.

3. The Committee now state that they have still been unable to make any further trial of the plough. They submit a report from their Superintendent who recently arrived from England, from which it appears that the description of plough and engine have been long since condemned in England, and that any further trials would probably result in retarding steam cultivation in India, instead of promoting it. The Committee endorse Mr. Robertson's remarks, and support

his recommendation that the steam engine be retained at the Farm, and suggest that the remainder of the apparatus be transferred to the Public Works Stores, where probably some portions of it may be utilised.

4. Before taking any further action in the matter, the Governor in-Council resolves to refer the Superintendent's letter to Major-General F. C. Cotton, with the request that he will favor the Government with any [illegible] on the subject.

(True Extract.)

(Signed) R. A. DALYELL,
Acting Secretary to Government.

To the Honorary Secretary, Government Farm.

Exd. F. R. Bantleman.

trials

Revenue Department.

No 1532

PROCEEDINGS of the MADRAS GOVERNMENT.

Under date the 8th June 1869.

Read the following letter from the Honorary Secretary to the Govt Farm, dated Hereunder 6th February 1869. (No 115)

Forwarding a full Report on the Steam Plough at the Farm, and recommending that it be sent to the Public Stores.—

In 1865 a Steam Plough was received from England and considerable expense was incurred in connection with it. The first trial of it was made at Ossoor under the direction of Colonel Thompson, Agent for Remounts and a second by the Municipal Commissioners of Madras later in the year. Neither of these trials

REVENUE

To

THE HONORABLE SECRETARY TO GOVERNMENT, MADRAS.

Dated Ootacamund, 1st June 1869.

Read

G.O. 1st June 1869 No. 1532

Read

Letter from Govt Farm Commissioner, dated 27th May 1869, forwarding a report on the trial of the Steam Plough at Ossoor.

From Messrs Spence & Co, Calcutta, dated 27th May 1869.

trials was, however, satisfactory as the machine was shown to have been worked under certain disadvantages.-

2. Early in 1866, the Plough and apparatus was deposited at the Government farm at Sydapet, in view to its being again tried after the monsoon in that year, but unfortunately none of the farm fields were found suitable, and as no person connected with the Farm Establishment was capable of managing the Plough. In September 1867, however, the Farm Committee reported their intention of utilizing the Engine

Engine belonging to the Plough, by working by it, and a rice huller, bone crusher, and powerful bucket pump.-

3. The Committee now state that they have still been unable to make any further trial of the Plough. They submit a report from their Superintendent who recently arrived from England, from which it appears that the description of Plough and Engine have been long since condemned in England, and that any further trials would probably result in retarding steam cultivation

cultivation in India
instead of promoting it.
The Committee endorse
Mr. Robertsons remarks
and support his recom-
mendations that the Steam
Engine be retained at the
Spring, and suggest that
the remainder of the ap-
paratus be transferred
to the Public Works Stores,
where probably some por-
tion of it may be utilized

Under the circumstances of the case the Right Honorable the Governor in Council adverts to the Committees proposals and resolves to bring their letter under the notice of the Right Honorable the Secretary of State.

5 Copies to the Honorary Secy Govt Farm Dept 2

I would not

I would not trouble
the Public works
Store keeper

I would not trouble
you with any remarks
he may desire to offer
on the subject.

4 Upon taking any
further action in
the matter the Govt
wishes to refer the
Superintendent Govt
Farm & Experimental Gdn
to him with the request
that he will favour
the Govt with any remarks
he may desire to offer
on the subject.

75K

I would not trouble you with notice of the Right Honorable the Secretary of State.
of the Bengal bill
as I am about Journal
to return to Bengal.

4 Yes 1891

E. H. Hall

C. 2 8 Ashley restrictions R-13"