

Home (Education) (1917)) Department.

Ordinary SERIES.

G.O. No. 163

DATED 13-2-17

INDEXE

[Despatch Abstract.]

Legislative Council resolution

Recording papers relating to resolution No. XVIII moved by the Hon'ble Mr. K.R.V. Krishna Rao Pantulu at the meeting of the Legislative Council held on the 21st November 1916 regarding the production of bleached paper in the Punalur paper mills and the of the chemicals etc. in laboratories.

CN^o 3712 E

20. 10. 16

Resolutions on matters of General Public Interest.SUBJECT.--No. III

for the meeting of the Legislative

Council to be held on the 21 - 11 - 1916.

SUBMITTED that two copies of this Resolution may be forwarded to the
Hane (Con) Department with reference to Nos. (1) and (4) of the
 rules regulating Secretariat procedure in dealing with these Resolutions in the
 Legislative Council. Orders regarding admission will be communicated in due
 course.

U.T.K.
19. 10. 16*Reg* U.O. No. 2487/dated 15-X-16

To

The

Hane (Con)

Department.

with *Reason* III*SK*

NOTES CONNECTED WITH RESOLUTION ON MATTERS OF
GENERAL PUBLIC INTEREST.

[SUBJECT.—*Production of bleached paper in the Punalur paper mills and of chemicals, etc., in laboratories.*]

The Hon'ble Mr. K. R. V. KRISHNA RAO PANTULU:—

~~XVIII~~ This Council recommends to His Excellency the Governor in Council—

(a) that immediate steps be taken to produce in the Punalur paper mills, bleached paper and pulp for printing and writing requirements in view of the great scarcity of paper in the Presidency;

(b) that steps be taken to equip the existing chemical laboratories in the Presidency for the production of pharmaceutical drugs and chemicals which are difficult to obtain here on account of the war.

HOME (EDUCATION) DEPARTMENT.

Clause (a) of the Resolution.—Towards the close of 1914 the Director of Industries

(A) Pages 14 to 17 of G.O. 120, 8th February 1915. applied to the Government for sanction to carry on experiments in the manufacture of paper pulp in the mill at Punalur in Travancore. As the question of the ownership of the mill was in dispute, the Government refrained from giving the sanction immediately. On the Director subsequently obtaining expert legal opinion as to the feasibility of taking the mill on lease on a nominal rental for a limited period, the Government permitted the

Pages 37-38 of *ibid.* Director to make the best terms he could on condition that the mill should be run at the expense of the proprietor. The terms settled by him were finally approved in G.O. No. 1419, Educational, dated the 14th December 1915. These are mainly—

(B) G.O. 1158, 25th October 1915. (V) (1) that the proprietor should undertake to bear all charges except those of expert supervision;
(2) that the department should meet the cost of supplying expert supervision, which was to consist of the following:—
(a) the deputation of Dr. Marsden to Punalur to institute experiments and supervise them, after a study for a period of not more than ten days at Calcutta of up-to-date processes, and
(b) the employment for one year of one engineer on Rs. 100 and a pulp maker on Rs. 80;

(3) that the sale-proceeds of the experimental manufacture should be retained by the proprietor, proper accounts being maintained under the orders of the Director for the purpose of arriving at the fundamental data of production;

(4) that the proprietor should undertake to carry on experimental production for such period, not exceeding one year, as might be necessary for ascertaining the data; and

(5) that the Government would not undertake any responsibility for the management of the mill and the proprietor should undertake to indemnify the Government against any loss through litigation in connection therewith.

The Director was asked to enter into an agreement on the above lines with the proprietor.

2. In the report of Dr. Marsden for the quarter ending the 31st March 1916, he pointed out that the mill (at Punalur) required considerable repairs and that these had been effected. In the report for the next quarter Dr. Marsden stated as follows :—

Page 2 of G.O. 610, 2nd June 1916. (T)
Page 3 of G.O. 807, 24th July 1916. (R)

"We have been able to make a good deal of progress there (Paper mill, Punalur) and have had a few weeks of regular production. We are handicapped by the difficulty of keeping up a sufficient head of steam in the boiler, for this is designed for coal firing, whereas the only available fuel is wood, and owing to the heavy and continuous rain this is soaked and will not burn sufficiently well. Were it not for this, we could carry on the regular production of brown paper and, as it is, we have been able to sell some twenty tons made entirely from bamboo.

"The quality, of course, leaves something to be desired, and I have in view certain alterations to the machinery which I expect will bring about an improvement in the strength and quality, though it may be that some brittleness is due to the nature of the bamboo fibre itself. I also intend to make experiments with other fibre-yielding materials."

Attention is also solicited to the account of the various difficulties encountered in the manufacture of paper in the Punalur mill as detailed on pages 26-27 of G.O. No. 1051, Home (Education), dated the 4th October 1916, and to the following extract from Dr. Marsden's letter dated the 25th June 1916, stitched with G.O. No. 992, Home (Education), dated the 18th September 1916 :—

"... we are making brown paper at present from bamboo, as with the plant available here this is easier than making pulp and is more remunerative. ... The value of a pulp is largely gauged by the ease with which it can be bleached, and as the cost of chemicals is very high here, it is out of the question to employ a sufficient quantity to get an easy bleaching pulp; that is, and be able to sell at a price which would be remunerative, especially as we are unable to employ the high pressure in the boilers which is demanded for the effective treatment of bamboo. We are therefore only giving a chemical treatment sufficient to soften the wood and loosen the fibres, and as this means that only a part of the incrusting matter is removed and to complete its destruction strong bleaching would be necessary, we are for the present not attempting to make pulp, which would be priced upon its suitability for white paper, but are utilising the plant for making brown paper for which purpose it is better suited."

3. In this connection attention is solicited to Sir Frederick Nicholson's note on the feasibility of manufacturing paper and paper pulp in this Presidency, on pages 27 to 33 of G.O. No. 120, Educational, dated the 8th February 1915. He considers that there are several difficulties in this country in the way of the successful establishment of a paper factory. Personally he was for undertaking the manufacture of half-stuff or pulp rather than of finished paper; but recommended that a thorough enquiry should be made by experts—

"(i) to ascertain the numerous and varied products practically available, *in esse* or *in posse*, for paper making of various classes;

"(ii) to consider the best methods for their development for that purpose; and

"(iii) to establish such productive development and the local utilisation of the developed products either in the making of paper or in merely making 'half-stuff' or 'pulp'."

He also stated that "except in certain of the cheaper and coarser finished products, such as brown papers, wrapping papers, paste and mill boards," it may not be possible "to compete with foreign

"papers which have enormous advantages in water, fuel, cheap chemicals, transport, complete technical experience, and the advantage of a going industry of more than a century's standing."

4. The Additional Member recommends that immediate steps be taken to produce at Punalur bleached paper and pulp for printing and writing requirements. Dr. Marsden has just initiated the experiments and it may take considerable time to find out whether the difficulties hitherto experienced can be successfully overcome

and the manufacture of a superior kind of paper or paper pulp undertaken with commercial success. Besides, the machinery available is antiquated, and it is not known whether the proprietor will be willing to incur the additional expenditure that may be found necessary in the provision of up-to-date machinery and expert supervision. In these circumstances it does not appear desirable to agree to the suggestion made in clause (a) of the resolution.

5. It may be noted here that Messrs. Nelson & Co. of Scotland applied in 1914 for certain concessions to establish a bamboo-pulp factory on the West Coast. Owing to certain difficulties anticipated by them they asked for further information recently and this has been furnished. It remains to be seen whether the concessions offered by the Government will induce the firm to establish a branch factory here.

G.O. 2421, Revenue, 20th August 1914. (J)
G.O. 992, 18th September 1916. (L)

6. Clause (b) of the resolution.—The Additional Member recommends that steps be taken to equip the existing chemical laboratories in the Presidency for the production of pharmaceutical drugs and chemicals. There are chemical laboratories

in all schools and colleges which teach science subjects. But as these are intended for instructional purposes it may not be possible to undertake the manufacture of drugs and chemicals in them.

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Further, such a commercial venture cannot be undertaken in educational institutions even if the laboratories were extended. The staff and equipment of

the laboratories cannot be improved without a considerable amount of expenditure which the Government can hardly incur at present. The business would seem to

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be one in which private enterprise should take the initiative and it should be undertaken in factories established for the purpose and not in the laboratories of educational institutions. There are such

factories in India, such as the Bengal Chemical Works at Calcutta. Before deciding as to the attitude that should be taken up by the Government in this matter, the file may be sent to the Local and Municipal (Medical) Department for remarks.

7. Orders are solicited as to whether the resolution should be discussed in Council, and as to who will be in charge of the resolution, and whether further information is required.

S.K.—28-10-16.

N.K.—28-10-16.

If emphasis is laid on the word "immediate" in part (a) of the resolution, this part of the resolution will seemingly have to be opposed; hope may however be held out that with improved plant, and when bleaching chemicals become obtainable at cheaper rates, experiments may be tried.

As regards (b) laboratories which are part of educational institutions no doubt ordinarily are not to be used in the work of production, though in the United Kingdom it is understood that many such laboratories are being used for the outturn of munitions in various forms; this state of affairs is of course exceptional, and it has yet to be proved that there is equally urgent need in India for pharmaceutical drugs and chemicals as for munitions at Home.

Though the ineptitude of production in educational laboratories is admitted, this does not preclude research (as an aid to production) being undertaken in such places; perhaps the Honourable Additional Member may be assured that research of this kind will be encouraged; and further that Government will come to the help of private enterprise to the extent of giving chemical manufacturers free access to a Government expert for consultation, etc.

The case may go to Local and Municipal (Medical) for information how far such a shortage of drugs and chemicals exists, and an opinion as to the extent to which the stock may be supplemented by local manufacture.

E. A. HARVEY—31-10-16.

Will Local and Municipal (Medical) offer its remarks. Please see clause (b) of the resolution?

P. RAJAGOPALA ACHARIYAR—1-11-16.

LOCAL AND MUNICIPAL (MEDICAL) DEPARTMENT.

Clause (b) of the resolution recommends that steps be taken to equip the Chemical Laboratories in the Presidency for the production of pharmaceutical drugs and chemicals which are said to be difficult to obtain here on account of the war.

2. Medical stores required for Government, Local Fund and Municipal Medical institutions are usually obtained from the Madras Medical Store Depot which is under the control of the Director-General, Indian Medical Service. No instances have hitherto been brought to the notice of Government of the Medical Store Depot having failed to supply an adequate quantity of the stores required. There is thus no *prima facie* evidence of actual dearth of materials, so far as this department is aware. In another connection the Surgeon-General has been asked unofficially whether there has been any shortage in the supply of chemicals from the India Office. No reply has yet been received from him.

3. This department may agree with the Home Department (vide their note on page 3 ante), that the laboratories attached to Educational institutions are probably ill-suited for manufacturing purposes and that the Additional Member's proposal will cause a serious dislocation of work in the schools and colleges concerned. Even if Government are disposed to consider the proposal favourably, it seems almost impossible at present to obtain from the United Kingdom the necessary machinery and other equipment required for the local manufacture of drugs and chemicals, as under the principles laid down by the Ministry of Munitions (vide G.O. No. 694, Separate Revenue, dated 19th August 1916) such articles are supplied, if at all, only for the maintenance of existing concerns and not for starting new ones. The same objections will hold good in the case of the Chemical Examiner's laboratory also.

4. With these remarks the case may, it is submitted, be returned to the Home Department.

K.N.—3-11-16.

V.S.—3-11-16.

There is no doubt that there has been a shortage of drugs, etc., since the commencement of the war but we have no definite information about the extent of such shortage. It is observed that the cost of European medicines supplied to hospitals has increased considerably. It was Rs. 4,02,263 in 1913, 5,70,634 in 1914 and 5,33,650 in 1915. In regard to hospitals in the city, the figures are 65,388 in 1913, 1,23,952 in 1914 and 1,09,766 in 1915. The annual returns of civil hospitals and dispensaries do not furnish any information on the extent of the shortage of drugs, etc. May the Surgeon-General be consulted?

2. As regards local manufacture, we may agree with Home (Educational) that it is a matter for private initiative.

V. T. KRISHNAMA ACHARI—4-11-16.

The idea of making pharmaceutical drugs and chemicals on a commercial scale in the existing chemical laboratories in this Presidency seems to me chimerical.

C. G. TODHUNTER—6-11-16.

HOME (EDUCATION) DEPARTMENT.

Submitted.

N.K.—9-11-16.

E. A. HARVEY—9-11-16.

So far as clause (a) is concerned a brief account may be given of what has been done till now in Punalur: and it may be pointed out that it has not been found possible to do more, that the whole thing is an experiment, and that the Government are not in a position to take *immediate* steps to produce at Punalur bleached paper, etc. In regard to (b) the reply may be on the lines indicated by the Local and Municipal Secretary. Orders solicited as to whether the Resolution should be discussed in Council, as to who will be in charge of the Resolution, and whether further information is required.

P. RAJAGOPALA ACHARIYAR—9-11-16.

Mr. Couchman may be asked to take charge of the Resolution: the (b) part requires only the briefest attention, as we have no facts, and no suitable laboratories for the purpose. Please instruct Mr. Couchman accordingly.

P[ENTLAND]—10-11-16.

I agree with His Excellency. As regards clause (b), the Additional Member probably thinks that a chemical laboratory such as he has heard of in a First Grade College can "produce", i.e., manufacture drugs! In other words he has not understood that manufacture needs regular manufacturing plant, and not merely the apparatus provided for chemical tuition and experiment. But Mr. Couchman will know all this.

A. G. C[ARDEW]—10-11-16.

Since the above notes were written Dr. Marsden, the Dyeing Expert, has submitted his report for the quarter ending the 30th September 1916. From paragraph 12 of the report (an extract of which is placed below) it appears that, in view of the unsatisfactory condition of the boiler in the Punalur mill the experiments hitherto conducted under the immediate supervision of Dr. Marsden have been discontinued; but that the proprietors are arranging to instal another boiler and to carry on the manufacture of paper themselves.

Soon please.

P.R.—11-11-16.

2. Dr. Marsden's quarterly reports are usually recorded and placed on the Editors' Table. The report just received will be submitted separately.

N.K.—10-11-16.

For perusal.

P.R.—11-11-16.

P[ENTLAND]—12-11-16.

The notes will now be printed. In the meanwhile a draft demi-official to the Hon'ble Mr. Couchman is submitted for approval. An un-official note to the Legislative Department is also placed below.

S.K.—13-11-16.

N.K.—13-11-16.

E.A.H.—13-11-16.

P.R.—13-11-16.

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Demi-official—from the Hon'ble Diwan Bahadur P. RAJAGOPALA ACHARIYAK
Avargal, C.I.E., Secretary to Government, Home (Education)
Department.

To—the Hon'ble Mr. M. E. COUCHMAN, I.C.S., Commissioner of Land Revenue
and Forests.

Dated—the 13th November 1916.

No.—3712-1.

The Hon'ble Mr. K. R. V. Krishna Rao has given notice of his intention to move at
the meeting of the Legislative Council to be held on the 21st instant a resolution in the
following terms:—

III. This Council recommends to His Excellency the Governor in Council

(a) that immediate steps be taken to produce in the Punalur paper mills, bleached
paper and pulp for printing and writing requirements in view of the great scarcity of paper
in the Presidency;

(b) that steps be taken to equip the existing chemical laboratories in the Presidency
for the production of pharmaceutical drugs and chemicals which are difficult to obtain here
on account of the war.

His Excellency desires that you should be in charge of the resolution when it is discussed
in Council. A copy of the note prepared in the Secretariat will be sent to you as soon as
printed copies are received from Press.

Extract from the Proceedings of an Adjourned Meeting of the Council of the
Governor of Fort St. George assembled for the purpose of making Laws
and Regulations under the provisions of the Act of Parliament, 5 & 6
Geo. V, Ch. 61.

The Council re-assembled at the Council Chamber, Fort St. George, at 11 a.m.
on Friday, the 24th day of November 1916.

RESOLUTION RE PRODUCTION OF BLEACHED PAPER IN THE
PUNALUR PAPER MILLS AND OF CHEMICALS, ETC.,
IN LABORATORIES.

The Hon'ble Mr. K. R. V. KRISHNA RAO:—"My Lord the terms of the
resolution which I have the honour to place before this Council for acceptance are as
follows:—

'XVIII. This Council recommends to His Excellency the Governor in
Council—

(a) that immediate steps be taken to produce in the Punalur paper
mills bleached paper and pulp for printing and writing requirements in view
of the great scarcity of paper in the Presidency; and

RESOLUTION RE PRODUCTION OF BLEACHED PAPER IN THE PUNALUR PAPER MILLS AND OF CHEMICALS, ETC., IN LABORATORIES.

(Mr. K. R. V. Krishna Rao.)

[24TH NOVEMBER 1916.]

(b) that steps be taken to equip the existing chemical laboratories in the Presidency for the production of pharmaceutical drugs and chemicals which are difficult to obtain here on account of the war.'

"My Lord, before I say anything about this resolution I must inform the Council that the Government have done something in the direction of the manufacture of paper in this Presidency but my object in placing this resolution before this Council is to request the Government to devote more attention towards this industry in particular and also to find methods for bleaching paper and pulp. My Lord, the Government have taken up the Punalur paper mills and have done all that is necessary to place it on a working basis but the process of bleaching paper has not been carried out successfully and a great deal remains to be done. I understand that that paper mill was taken up for one year and during this one year some months and in fact a large portion of the year had to be spent for equipping the factory and placing it on a proper working basis. Up to now some attempts no doubt were made for finding out means and methods for bleaching paper and pulp and I by this resolution place before your Excellency's Government the desirability of paying more attention to this branch of industry on account of its great importance. My Lord, we know and everybody in this country knows how the price of paper has gone up since the war broke out in Europe. The quantity of paper required for the whole country is about sixty thousand tons a year, and this Presidency alone consumes paper to the value of 25½ lakhs of rupees and it was found out that the Mysore forest supplied about sixty thousand tons of pulp for the manufacture of good paper and other forests such as the forests in Travancore and other places also have very great resources of raw products required for the purpose of manufacturing pulp, not to speak of the inexhaustible supply of bamboo that is available in the country. What we do require is that in that factory the bleaching process should be successfully carried on and if the methods of manufacturing paper and the bleaching of pulp and paper are demonstrated, there is every hope of this most important industry being established in this Presidency.

"My Lord, it is reported in the *Indian Trade Journal* that in the paper mill in Lucknow the electrolysis process was introduced and with that new application the methods of bleaching are being tried. I only recommend in this resolution that your Excellency's Government may devote their attention to this particular matter without further delay so that the Punalur paper mills may by practical demonstration prove to the capitalists and other mercantile adventurers in this country the possibility of making the paper industry a success.

"The next portion of the resolution deals with the equipment of the chemical laboratories for the production of pharmaceutical drugs and chemicals. In the Madras Medical Stores, such equipment is found and the Calcutta Medical Stores are able to manufacture about a little over 200 different drugs. Similarly, I take this opportunity of recommending to your Excellency's Government the desirability of equipping the Medical Stores laboratory here and the laboratory of the Chemical Examiner and also the Scientific Research Institute at Bangalore with the necessary appliances for the manufacture of such drugs as may be possible to be manufactured in this Presidency.

"It is said and is also demonstrated in some of the laboratories in Calcutta that with small amounts of capital and with also small appliances, not to speak of large manufacturing equipments, some chemical drugs can possibly be manufactured in India and this form of industry will be of great service and usefulness to the country where capital cannot be expected to come forth in large amounts and where it is not possible to open large factories on a commercial scale as in Europe and in Great Britain. Even if a small beginning can be made as in the Calcutta Medical Stores in the Medical Stores of this Presidency, something in this direction can be done and by practical demonstration the possibility of manufacturing some preparations can be proved.

"Again, my Lord, in an article published in the *Madras Mail* dated 24th January 1916, the following course was suggested: 'India offers a great field for making a systematic effort to grow several of these vegetable drugs, and we are sure that this effort, if scientifically carried out, would be as successful as has been the case with quinine productions in this country. There is the Department of Botanical

RESOLUTION RE PRODUCTION OF BLEACHED PAPER IN THE PUNALUR PAPER MILLS AND OF CHEMICALS, ETC., IN LABORATORIES.

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Survey in Calcutta, which has under it a Reporter of Economic Products and in Madras there is a pharmaceutical chemist with British qualifications who is attached to the Government Medical Stores Depot, and by associating the latter with the Economic Reporter in Calcutta a useful co-operation might be initiated which might ultimately result in the establishment of important industries in India.' This method was suggested in the *Madras Mail*. I think a small beginning might be made for the manufacture of some drugs which can possibly be manufactured in the Medical Stores in this Presidency as is being done in Calcutta. My Lord, this recommendation and suggestion which I have placed before your Excellency's Government if carried out will also facilitate the investigation of many indigenous drugs about which the attention of this Council was evoked by some of the resolutions moved concerning the possibility of placing Ayurvedic and Unani systems of medicines on a more satisfactory basis. Some drugs which are indigenous to this country and which are employed in these systems of medicine can also be carefully examined in such laboratories as the Medical Stores laboratory and the laboratory attached to the Chemical Examiner, if equipped with the necessary appliances for these manufactures.

"With these remarks I place this suggestion before your Excellency's Government in the hope that the Government may devote their attention towards the manufacture of these chemicals and drugs also and pay greater attention and do all that is necessary to be done to find out the bleaching process for the manufacture of paper and pulp in the Punalur Paper Mills. I hope your Excellency's Government will be pleased to accept this resolution because I am not asking for anything to be done that cannot possibly be done, but I only want that your Excellency's Government may devote more attention to those branches of industry. No doubt some attention is being given already but I only want that the pace at which these manufactures and especially the paper manufacture are conducted in this Presidency may be accelerated and the possibility of the success of paper manufacture may be demonstrated to the persons concerned. With these words I place this resolution for the acceptance of your Excellency's Government."

The Hon'ble Mr. Yaqub Hasan Sahib:—"I beg to second this proposition. I do not know how far these suggestions will prove practicable. No doubt the Director of Industries will be able to throw some light on them. All that is desired by the Honourable mover in this resolution is that some attention may be paid towards the promoting of industries in this Presidency. These two industries are picked out particularly, because the Government have made a beginning in at least one of them and the equipment at the disposal of Government in the other, in the case of drugs and chemicals, is such that with a little more attention on the part of the Government many good results can be hoped for. It is in this spirit that we commend this resolution to your Excellency's Government. It may be that when closer examination is made of the proposition, perhaps some practical difficulty may be found. All that I ask for is that instead of mentioning those difficulties by way of excuse for putting it off, Government would kindly try to overcome those difficulties and by achieving success in these two lines would make a practical demonstration to the people and thereby stimulate the industries to a large extent. Much capital will be directed into this channel when public is convinced that a particular industry can be profitably taken into hand. It is said that capital is very timid. It is so because the knowledge which is necessary for founding new industries is very limited. Government alone in the present state of affairs are in a position to give directions to industrial pursuits and in these two lines particularly Government are in a position to make a good beginning."

The Hon'ble Mr. M. E. Couchman:—"Your Excellency, the fact that this resolution has been moved in these terms seems to indicate some misapprehension as to the position of our experiments, and, therefore, although the Honourable Member who seconded the resolution asked me not to allude to difficulties I am obliged to do so in order to make the matter clear. The Punalur paper mills were started thirty years ago with aid and assistance from the Travancore Government who took up a substantial part of the shares. The mills worked for about three years at a heavy loss and then they stopped working and they imported an expert to give an opinion. His opinion was that the mills were unsuited for the manufacture of white paper, and that only brown paper could be profitably manufactured. But it was subsequently

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RESOLUTION RE PRODUCTION OF BLEACHED PAPER IN THE PUNALUR PAPER MILLS AND OF CHEMICALS, ETC., IN LABORATORIES.

(Mr. Couchman; Mr. K. R. V. Krishna Rao.) [24TH NOVEMBER 1916.]

thought that the demand for brown paper would not be sufficient to make even the manufacture of brown paper profitable. After some further vicissitudes the mills were sold and passed to various bodies. I think, the Travancore Government lost more than five lakhs of rupees on this enterprise. Shortly after the beginning of the war the owner approached this Government for help to do something in the way of manufacturing paper in view of the scarcity created by the war. Government offered expert advice,—the opinion of Mr. Marsden—and agreed to pay a portion of the cost of the management of the mills. As the mills had been out of work for the last twenty-five years, a lot of preliminary cleaning had to be done before they were started this year. They were worked intermittently until July last when the boiler was found to be in a dangerous condition, and what has now happened is that the owner is putting up a new boiler with the idea of commencing operations when the boiler is ready. But I must say that the prospect of making white paper is very poor as the only material available is bamboo. We find that grass costs too much to bring to the place. We not only have the opinion of the expert brought out by the old company to the effect that the mills are not suitable except for making brown paper, but we have also the fact that up to the present time, according to my information, no one has succeeded in making white paper from bamboo in India on a commercial scale. Experiments were carried out by the Calcutta mills with bamboo; and now I am told they have entirely given them up, and they have adapted their bamboo machinery for grass. They are making white paper not from imported pulp which has stopped after the war but chiefly from grass, but they have entirely given up making white paper from bamboo. I think as regards the first portion of the resolution I must give a discouraging answer. In the first place owing to the cost of chemicals and various other considerations it has not yet been shown that white paper can be made from bamboo in India at a profit; in the second place, the mills are not under us, but are owned by private parties and it is for the owner to decide what kind of paper he shall make; and as the only chance of making a profit seems to lie in making brown paper, we may take it that he will confine himself to brown paper for the present. At the same time, the question of making paper or pulp from bamboo has not been lost sight of by Government and they are trying to interest various private firms in larger experiments which I hope will lead to better results.

“As regards the second part of the motion, that steps be taken to equip the existing chemical laboratories in the Presidency for the production of pharmaceutical drugs and chemicals, I was hoping that the Hon'ble Mr. Krishna Rao would specify what kind of drugs he would like to see manufactured. The Honourable the Surgeon-General tells me that all the common drugs are still being made in England and imported in usual quantities by the medical department, and that all the medical institutions and aided institutions are being supplied as before. In addition to this he tells me by the way that the Medical Stores in Calcutta has been practically transferred to Madras and that we are doing far more in Madras than in Calcutta. In Madras they are making all kinds of pharmaceutical drugs and extracts, pills, tabloids, and extract castor oil from the seeds of the country. There are various private chemical firms in India engaged in manufacturing common drugs such as sodium, potassium, Epsom and other salts, and the only things in which shortage is experienced are the synthetical drugs which I understand are imported. It would be an expensive matter to make them in India. They are made from coal-tar which is a waste product in Europe. Here in India it is not so. If we are to make coal-tar we must make it by the destructive distillation of coal, and the material will be very much more costly than in countries where coal-tar is a waste product. In the second place, the existing chemical laboratories in this country are unsuited for the manufacture of drugs on a commercial scale; they are only intended for teaching and demonstrating. The quantity of chemicals would only amount to a few ounces and we must remember that these laboratories are not lying idle but are being fully used for the purposes for which they are intended. If we are to adapt them for commercial purposes, we shall have to turn out the students and professors and I do not suppose the Honourable Member can view that idea with approval, so that I do not think either part of the resolution can be accepted by Government.”

The Hon'ble Mr. K. R. V. KRISHNA RAO:—“My Lord, I said at the outset that my intention in placing this resolution before this Council was not to complain that

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(Mr. K. R. V. Krishna Rao.)

the Government had not done anything with regard to these industries nor to say that there are no difficulties in the way of these two particular industries. My chief object is to evoke the attention of Government to these two industries and request them to pay more attention and make greater efforts as far as possible. The employment of an expert from Japan or Dehra Dun or some other place to make further researches on a systematic and practical basis to see whether bleaching pulp can be manufactured and bleaching paper can be manufactured out of other kinds of grass though not from bamboo itself requires to be still undertaken. I want that the Government may be pleased to have a proper expert to go into the question more systematically and more thoroughly than they were able to do hitherto.

“With regard to the pharmaceutical manufactory, I did not advise that the Government should undertake on a large manufacturing scale, but I only suggested that as in the case of the Calcutta Medical Stores small equipments may be provided for the laboratories here in this Presidency also for the manufacture of small quantities of drugs for the purpose of supplying Government hospitals and other private institutions and also to demonstrate to the public the possibility of the manufacture of such drugs. I do not recommend that the Government should undertake to establish large factories as in Europe and other countries for the manufacture of these and other chemicals. I only request that attempts might be made in the laboratories to prove and demonstrate the methods of manufacturing drugs that can possibly be manufactured here and also to show by way of practical demonstration to the persons who might be willing to continue these manufactures. This is my object in placing this resolution, and I do not press it since my object is only to place before your Excellency's Government that more attention should be paid and a more systematic effort in this direction should be made. I withdraw my resolution.”

With the permission of His Excellency the President, the resolution was withdrawn.

R. A. GRAHAM,

Acting Secretary to Govt., L. & M. (Legislative) Dept.

is was read
by on the 5th instant.

7. 11 supra.

Please see the extract from
Council proceedings on page
7 to 11 supra. The Honble Mr. Bone
man explained ~~how~~ to the
Council that the resolution
could not be accepted by
the Govt. The Additional mem
ber urged that an expert shou
be recruited to make fur
researches on a systematic
& practical basis on the
manufacture of bleaching
pulp & paper. This ^{in order}
whether any ^{no} action ^{appears to} should
be taken ^{by examining} with reference to the
suggestion ~~or whether~~ ^{and} the paper
may be recorded.

SA
9.2.17.

M
MHN

SAH
12.2.17

Legislative Council resolution

Recording papers relating to resolution No. 111
moved by the Hon'ble Mr K.R.V. Krishna Rao Pantulu
at the meeting of the Legislative Council held
on the 21st November 1916 regarding the
recognition of bleached paper in the Cumin paper
READ AGAIN G.O. No. 191, dated 1916
mills of chemicals, &c; in laboratories. 191

READ ALSO:—

C. No. 3712, From the _____, No. _____, dated _____ 191

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99 99 99 99

ORDER.

No. 163, dated 18-2-19

Misc

Recorded

(2) E. A. H.

12 · 2 · 17.

(22) H.A.E.

Legislative Council resolution

Resolving paper relating to resolution
passed by the House of Representatives
on the 11th of November 1911 regarding the
organization of a committee on the
subject of the legislative council
with reference to the committee
on the subject of the legislative council

3712

Resolving

(22) E.A.H.

12.8.17

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191

READ AGAIN G.O. No. 191 DATED

CURRENT No.

ENCLOSURES TO G. No.

ORDER OF GOVERNMENT A A A A A A A

LETTER OF GOVERNMENT.

STATEMENT WITH DITTO.

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