MEMORANDUM by the UNDER SECRETARY.

By direction of Government the sum of £150 was ordered to be paid to Mr Batchelor, and he was informed that any further grant must be approved by Parliament. 29th July,

G. S. COOPER.

APPENDIX V.-MANUFACTURES.

No. 16.

MEMORANDUM by the Hon. J. VOGEL to Dr. HECTOR.

Sorghum.

FROM all I can learn, it is very doubtful how far the Beet-sugar cultivation has been a success here; but everybody seems to agree that the cultivation of Sorghum has been a success-that for cattlefeeding the thing is unequalled; and that from two varieties you can, with proper management, be sure of obtaining sugar. Machines for utilizing Sorghum can be obtained cheaply. I enclose you, herewith, some pamphlets on the subject, with a price-list of the machines, a long catalogue of plants, seeds, &c., and also a very interesting memorandum by Mr. Fox, containing the information he took down during a conversation with Mr. Blymyer, a gentleman connected with several large firms who have-to use a very favourite expression in the country-"made a specialty" of Sorghum machines, seed, &c.

If it is desired that I should, on my way back, do anything towards the introduction of Sorghum into New Zealand, you should address me on the subject, stating the views of the Government, and sending the letter to London or to New York. I expect to leave England in June, so you will be yourself the best judge whether you should address me in England or in America. Any letters addressed to me "to the care of W. H. Webb, Esq., New York" or "Bank of California, San Francisco," will reach me.

I enclose a slip cut from a Sacramento paper, showing the advertisements as to mulberry trees that can be procured there. I think it would be well worth while to carry over several thousand of the young plants. I believe that Mr Gray is going to take some, and, if it is desired, I could also bring some with me. I enclose you a letter addressed to Dr Pollen, and which was handed to me just before I left Auckland. If the Government resolves—as I think they might very properly do—to meet the request of the writer, some communication should be made to him, as I had no opportunity of answering his letter; and if it is desired that I should bring plants for him, I can do so.

Write me very fully, if there is any information I can obtain for you. I have not forgotten your request about blankets; but I have not had opportunities of making any inquiries on the subject. Staying only a day or two in each place, and having a great deal to do, there is great difficulty even in ascertaining exactly the people from whom any information can be J. VOGEL. obtained.

26th February, 1871.

No. 17.

MEMORANDUM by the Hon. J. VOGEL.

Cultivation of Sorghum, and Production of Syrup and Sugar.

numbers of "The Sorgo Journal," together with printed descriptions of THE accompanying patent machines for the production of syrup and sugar from the Sorgo cane, were obtained from Mr. Blymyer, of Blymyer, Fearing, and Co., corner of Beach and Sebor Streets, Chicago. The complete "Sorgo Journal" can be purchased in Cincinnati, if necessary; but Mr. Blymyer says that the numbers selected by him, and now forwarded, contain really all the information needed by any one who desires to cultivate the plant practically.

What follows represents the substance of a conversation with Mr. Blymyer :--Sorgo grows " best" on a "sandy loam," but such a sort is not necessary for successful culture. It grows "best" wherever corn grows well; but the term "corn," is used not as including all cereals, but only such as Indian corn and maize, and excluding wheat, oats, and barley.

In Illinois and neighbouring States, Sorgo has been cultivated for ten or eleven years, it having been first introduced experimentally about thirtcen years ago. During the late war, the cultivation of this cane had more than a "spurt" given to it, from the fact that the supply of sugar and syrup from the South could not be relied upon; but now in the strictly Northern States, this kind of crop is being again neglected, as it is not possible to compete with Southern sugar and syrup. The necessity for making something of the Sorghum during the war led to the commencement of the improved process now used. At present, Mr. Blymyer says, in Illinois, Iowa, although Sorghum is very extensively grown, very little of the syrup or sugar becomes an article of commerce. The farmers find that it pays them well, as a crop grown to supply their own wants, or to supply the wants of farming districts, the manufacture being conducted by farmers who can afford to invest in machinery, and who are paid in proportion to the yield from the cane—one-third is the proportion stated in the printed papers.

It is admitted that crude Sorghum syrup has a taste which is offensive to most persons at first; a "raw, new, earthy sort of taste," is Mr. Blymyer's description of it—a description differing somewhat from that in the printed papers. But that taste can be wholly destroyed; and the refined somewhat from that in the printed papers. But that take can be whony destroyed; and the reinted Sorghum syrup, if it could be obtained in quantity to make commercial dealing with it a thing to attract, would at present "fetch as good a price as any syrup ever made from the best Southern cane." Except with one or two kinds of the Sorgo plant specified in the papers, the attempt to make sugar does not seem to be approved. The syrup, except in the cases indicated, is not found to granulate well—certainly not so well as with the majority of beets. But when sugar is made from Sorgo plants, it is wholly free from any unpleasant taste, and is in fact of excellent taste. To produce granulation so long as that which causes the unpleasant taste of the syrup remains, is not possible-