

1905.
NEW ZEALAND.

AGRICULTURAL, PASTORAL, AND STOCK COMMITTEE

(REPORT OF THE) ON THE FLAX INDUSTRY, TOGETHER WITH MINUTES OF EVIDENCE.

(MR. LAWRY, CHAIRMAN.)

Report brought up the 28th day of October, 1905.

ORDER OF REFERENCE.

Extract from the Journals of the House of Representatives.

WEDNESDAY, THE 28TH DAY OF JUNE, 1905.

Ordered, "That Standing Order No. 218 be suspended, and that a Committee, consisting of fourteen members, be appointed to consider all matters pertaining to agricultural and pastoral industries and stock, with power to confer and sit together with any similar Committee which may be appointed by the Legislative Council, and to agree to a joint or separate report; the Committee to have power to call for persons, papers, and records; three to be a quorum: the Committee to consist of Mr. Bollard, Mr. Buddo, Mr. Hogg, Mr. Kidd, Mr. Kirkbride, Mr. Lawry, Mr. Lethbridge, Mr. T. Mackenzie, Mr. McLachlan, Mr. Rhodes, Mr. Rutherford, Hon. Sir W. J. Steward, Mr. Symes, and the mover."—(Hon. Mr. DUNCAN.)

REPORT.

THE Committee has the honour to report that communications were sent by authority to all the Chambers of Commerce, Flax-millers' Associations, and individuals known to be interested in the flax industry in the colony, inviting witnesses to appear and give evidence on every phase of the said industry.

In response to this invitation twenty witnesses appeared before the Committee, which sat eight days taking evidence.

The Committee is of opinion that the evidence given is most valuable, and must be of great utility in guiding the Department of Agriculture in framing amended regulations to meet the requirements of the industry, which is essentially national.

The Committee strongly recommends that the Department be authorised to take immediate steps to promote by all available means the cultivation of flax, the evidence having conclusively shown the necessity of such a course.

The Committee does not feel justified in recommending that the export of inferior fibre should be prohibited.

The Committee specially approves of the statement made by the Chief Grader—viz., that the Department intended by amended regulations to reduce the difference between the various grades of quality of dressed flax from fifteen points to seven.

Saturday, 28th October, 1905.

F. LAWRY, Chairman.

MINUTES OF EVIDENCE.

WEDNESDAY, 27TH SEPTEMBER, 1905.

IRVEN WILLIS RAYMOND examined. (No. 1.)

1. *The Chairman.*] What is your occupation?—Merchant, Invercargill.

2. You desire to give evidence before this Committee on the flax industry?—That is so.

3. Will you be good enough to place your evidence in as concise a form as possible, and afterwards members of the Committee, if they desire, will ask you questions. I had a telegram sent to the Invercargill Chamber of Commerce with regard to this matter?—Yes, and I might say that I appear here on behalf of the Chamber of Commerce, in the dual capacity of an exporter of fibre and a manufacturer. Last year I was a very large exporter from the South, and had also six mills of my own working in connection with the manufacture of fibre, so that my evidence will not be in any way biased towards the millers or towards the fibre-exporters. I think it would be well if I gave a little information as to the condition of the industry last year in Southland. I have not travelled in the North Island sufficiently extensively to speak about the conditions of the industry there. Last year was the "boom" year in Southland in so far as the flax industry is concerned, and I am satisfied that unless the replanting of flax is very vigorously pushed forward, Southland will never reach the output of last season. There were seventy mills working in Southland last year with an export from the Port of Bluff of 6,100 tons—that is, up to the 31st March—while 300 tons went northward, making altogether 6,400 tons of fibre produced in Southland. This represented a value of £167,000. I notice that the Department of Agriculture has placed the value at £26 per ton, and I take it that this information is gleaned from the Customs export entries. Well, it seems to me—if I may say so—an excessive value, because a great quantity of the fibre shipped from the Port of Bluff was "fair," and no "fair" netted £25 per ton f.o.b., a large proportion only reaching £23; but that is by the way. There were over twelve hundred men employed in the industry, so I think members of the Committee will see that as far as Southland is concerned it is a very important industry, and apparently a money-making one. However, when I tell the Committee that not more than 15 per cent. of the mills paid, and that no one miller earned over £1,000—that with a fair approximation fully £20,000 was lost in milling, instead of £20,000 being won—you will see that it is time this Committee or some other Committee took the matter up and endeavoured to stop the leakage, because the expenditure of this money, while very advantageous to the employees and plant-manufacturers, means ruination to the millowners, and this falls to some extent on the community. The question naturally arises, what is the cause of this great loss in handling the raw material? I think the primary cause is incompetency in management, and yet I know—and I am speaking from experience—one of the most practical millers I had in my employ—a man who had been fifteen years in the industry, and who could turn out 90 per cent. of "good fair" grade—made the greatest loss for me. So there was a case of an experienced miller, and yet a man incapable of making a financial success of the undertaking. It may be argued that the Government have nothing to do with a private enterprise such as the fibre industry, but I take it that it should be considered much on the same lines as the dairy industry, and I am convinced that some steps will have to be taken to remedy the existing condition of things. There are so many matters of detail in the management of a mill, and it is in matters of detail that the losses take place, so I am satisfied that the time has arrived when the Government should appoint say, two instructors—men possessing a full knowledge of the complete working of a mill, and all the *minutiae* in connection therewith. The men to be appointed should, in addition to being practical men, have made flax-milling a financial success on their own account. That is a material point. Of course, to secure such men a substantial salary would have to be given, because a man who can make a success at milling ought to make his £800 to £1,000 a year. Some of these men may have cut out their areas of flax and may be devoting their energies in other directions, so the Government might be able to secure such a man at a fair salary. I do not think the services of good men should be lost for the sake of a few pounds when the life of the industry is, to a great extent, at stake. These instructors should have a full knowledge of the class of fibre or standard of fibre required by the Home or foreign consumers and manufacturers. It is no use the Department here creating ideals of their own. I may have something to say about grading a little later on; if not, the Committee may question me thereon. The instructor should be able to go into a mill and inform the man in charge exactly how to set his machine in order to bring out the class of fibre required, and he should also be a thorough master of gearing—that is to say, he should know exactly how to set his machinery to secure the maximum amount of power with the minimum cost of fuel. In the South I am satisfied that thousands have been lost during the last year or two owing to an imperfect knowledge of how to set up the machinery. Such an instructor would inspect the leaf in connection with the respective mills, and advise the miller of the class of fibre his mill ought to turn out therefrom. A number of "raw" millers contract to supply "good fair" from diseased or short leaf, with the result that a very large proportion of the fibre goes into the tow-box—to the loss, of course, of the material—which should have gone into fibre. If a miller has an inferior leaf it will never pay to attempt to turn out a high-grade fibre. Then there is the setting-up of the mills. Suitability of sites, as to water, and paddock ground, and carting, is an essential towards the success of milling. In this direction I am satisfied a capable man would be of invaluable assistance to

many millers. Some millers may not perhaps desire advice from a Government instructor, but I am satisfied 90 per cent. would be only too glad to have such advice available, provided the right man is appointed. It would be a serious matter if the wrong man were appointed, because millers who have a certain amount of knowledge and experience in connection with milling may be wholly guided by such men, and, if incompetent, disaster would inevitably follow. The next important reform is the question of arriving at the proper standard of fibre desired by the foreign manufacturers. I have handled considerable quantities during the last two years, and I have had no complaints from my foreign buyers on the score of irregularity of grading, or any expression of dissatisfaction with the fibre they have received. They have, however, stated that they think we aim at too fine a class of fibre—that a coarser fibre would suit their requirements, and would suit them better providing the fibre was entirely free from diseased leaf, knots, and other evidence of imperfect stripping, such as backs and feather-edges, &c. In that connection I am inclined to think, though a miller, that the Government Grader should seriously penalise the miller who sends in stripped diseased leaf among “good fair” fibre. As far as my own mills are concerned, I have sent out circulars to the millers telling them that when the classers find diseased leaf they should put it to one side, and if it is not seriously destroyed by worm, &c., it could be put through the mill afterwards and used in a lower grade fibre. I have been in the grading stores at Bluff and have seen “good fair” fibre come in, and through each bale a quantity of diseased leaf appeared. The Grader was thus placed in the position of not knowing what to do with the line. Home importers receiving a bale with several hanks of inferior and absolutely useless fibre naturally would feel annoyed. There is really no excuse for the classer placing diseased blades in the hands of the feeder; it is inexcusable carelessness. I now come to the question of recasting of points. I have always felt that the readjustment of points was an absolute necessity. Personally I see no reason to retain on the schedule No. 1 Grade (“superior”). I am satisfied that only a small proportion of the output of the colony comes within that category; I have never been asked to supply it. I have been asked for the No. 2 Grade (“fine”), but only on rare occasions. I think ten points only between the various grades would be a desirable change. I disagree entirely with the fifteen points now existing between “fair” and “good fair”—that is, between sixty and seventy-four points. In support of this contention one has only to possess the knowledge of the value assessed by Home buyers on “fair” fibre as against “good fair” for the last year or so. Three years ago about £1 a ton was considered a fair margin, but latterly from £2 10s. to £3 a ton has been insisted upon, because the Home buyer, while buying “fair” fibre, that might reach seventy points or seventy-three points, stood a chance of receiving fibre that only went sixty points—one point removed from common—therefore he had to base his calculation on the minimum grade that he might be supplied with. This marginal allowance meant a serious loss to the miller, and I believe the excessive range in points has had a great deal to do with the disinclination of Home buyers to operate freely for the “fair” grade. At the Chamber of Commerce, Invercargill, I advocated this reform some considerable time ago, and I understand now that the Department is favourably disposed to such an alteration. While dealing with this question I think it would be in the interests of the industry if fibre under the “common” grade was absolutely prevented from leaving the colony. “Common” is not much sought after at Home, but intercolonially there is a considerable quantity sold. There is another matter which I am satisfied should be given effect to, and that is a reform in the method of tagging. At present Graders place a tag at one end of the bale denoting the grade, which can easily be removed in transit or at Home, and another tag substituted. If a grade ticket of similar material—a kind of parchment—was inserted by the Grader in any part of the bale, with the name of the mill on it if necessary from which the fibre came, it would obviate the danger of this rearrangement of tags. I had several lines graded “fair” at the Bluff last year comprising about 20-odd tons. I personally inspected the lines, and decided that the Grader had been too exacting. The lines graded from seventy-one to seventy-three points, and I considered they should have gone “good fair.” However, I did not attempt to tell the Grader his business, but shipped the line Home to be sold on its merits. I advised my London people to sell the line to the best advantage, and it realised “good fair” prices on the London market. My agents may have removed the tags and sold it with part of the “good fair” fibre that had been sent Home. There is a matter of detail which might be mentioned. I think a uniformity of baling should be insisted on by regulation both in regard to cube measurement and weight, because there are millers in Southland who are sending out bales from 2½ cwt. to 5 cwt., and uniformity is desirable for many reasons. Personally I think a bale of 4 cwt. is a very fair weight. There is one matter I omitted to mention. I think the Grader should place on the tags which he inserts in the bale the number of points that that particular line has reached. I understand this is objected to by some of the export merchants, but as an export merchant, and one feeling genuine interest in the success of the industry, I think such a step desirable. Moreover, it is only fair to the Grader, as it establishes his exact estimate of the parcel. When you consider there is a range of ten points, and the price each point will make when the fibre is selling at £27 and £28 a ton, there is a satisfaction to consumers in knowing whether they are being supplied with a bare grade or not. Coming to the question of flax-planting: In Southland, owing to the ravages of stock, the cutting of flax in the winter-time or off season, and the cultivation of the land, I am satisfied we shall never reach within 50 per cent. of last season’s output unless flax-planting is vigorously proceeded with. With this object in view I am of opinion that the Government should consider the advisableness of empowering the Land Boards to acquire suitable areas from existing pastoral tenants or small-grazing-run holders when such are applied for, because in many such cases the land is not bringing in a halfpenny per acre to the Crown, while it is capable of growing flax suitable for milling, and flax containing the least amount of vegetation. In the South hill-flax will turn out from 10 to 15 per cent. more fibre than flax off river-flats. I know of very many suitable localities in Southland convenient to railways and roads, the land held by pastoral tenants, with whom, of course, one

cannot deal in the way of making any arrangement about planting, and one has to close down owing to the supply running short. I think that is an aspect of the flax industry that the Government might favourably consider. It may be information to the Committee if I state that the average amount of green leaf to the ton of fibre in the South is about 8 tons. Last year it took 9 tons, owing to it being a "korari" year, and, of course, this extra ton meant a cost of fully £1 2s. a ton more on the green leaf. I should assess the cost to the miller in the South last year of green leaf to the ton of fibre—i.e., royalties, cutting, and carting—at £10; on paper and on the information supplied by practical men the actual cost of milling and placing f.o.b. should not exceed £9 per ton, or a total of £19—that is, allowing a fair margin for contingencies. The average price for fibre f.o.b. was, say, £25, so there is an apparent margin of £6 per ton, and as a fully equipped mill should turn out at least 130 tons, this should represent a profit of £780. Some mills sold their outputs at £28 10s. f.o.b. I have a mill where the green leaf costs me only 13s. 6d. delivered, but the royalty is low, the flax is convenient to the mill, and the cutting is only 4s. a ton; the average price last year was 5s. 6d. to 6s. This is all I have to say to the Committee. I have to express my pleasure at having the opportunity of appearing and giving evidence before you, and I hope that some points that I have referred to will sufficiently impress the Committee with the necessity of bringing in some recommendation towards fostering so important an industry.

4. *Hon. Mr. Duncan.*] You stated in your opening remarks that there were twelve hundred men employed in the flax industry in the South last year?—Yes.

5. And that there was £20,000 lost by the millers?—That is so.

6. One reason that you gave us to account for the loss was that through bad stripping a considerable part of it went into the tow-box?—Yes; that comes under the head of incompetent management.

7. How much did that account for out of the loss of the £20,000 a year?—It is very hard to say. A practical miller and a man handling a good leaf, and who is turning out "good fair" should not create any more than about 5 cwt. of tow to the ton of fibre. Of course, if he turned out "fair" grade he should produce less tow. An instance occurred in the South where a man swore in Court that it took 10 cwt. of tow to the ton of fibre.

8. Will you tell the Committee what you consider a fair average?—From 5 to 5½ cwt. for "good fair." That is the maximum. An unnecessary quantity of tow is made through the catcher not being careful to place the butts evenly.

9. You touched on the matter of instructors, and in your opinion there are not many millers who have a fair knowledge of the working of the machines?—In the South you could count them on the fingers of your hand—that is, those who are competent.

10. You have how many mills?—Six.

11. What do you reckon the total number?—Seventy.

12. And there are not ten competent men in the lot?—Not more than 15 per cent. I mean competent all-round men, because while a man might be a good miller he may be careless in matters of detail, and it is in matters of detail where the loss takes place.

13. You say that the flax is feathered—that is, after it comes through the mill?—Yes, after it is stripped and scutched.

14. Is there not a good deal in flax?—The cause is due really to careless stripping.

15. Is it not after the flax gets wilted that feather is induced?—A miller should not try to manufacture too inferior "weather-whipped" flax.

16. You said that you saw no necessity for the No. 1 Grade—that is, the highest grade of all?—Yes, I think the Department will bear me out when I say there has been a very small percentage of No. 1 turned out. I have never had any inquiries for it.

17. Can you tell the Committee whether the flax you turn out is used for rope, or for what?—Mostly binding-twine. I have supplied it for rope-manufacture, but mostly for binding-twine.

18. As a rule, you are not asked to supply a high grade?—No; "good fair" is most sought after.

19. Have you had any inquiries for short lengths?—No, the manufacturers prefer the long ones. I know the Australian consumers on one occasion in commenting on a line said it was a very good standard, but it was a little too short for their purpose.

20. What do you think the "common" is used for?—To work up the other grades such as "fair" and "good fair."

21. For mixing?—Yes.

22. In your opinion nothing below common should be exported?—That is so. If it is condemned it should certainly not go out of the colony.

23. You condemn the tagging?—I say reform is necessary.

24. You suggested a reform with regard to using a parchment tag and putting it in the bale?—Yes. Of course, it would have to be duplicated outside.

25. You said that in one instance, at any rate, you thought the Grader was too exacting. Which Grader did you allude to?—Grader Shea.

26. You thought he was putting too low a grade on the quality?—Yes; I think he was too fastidious over the lines I referred to.

27. Perhaps he might on that occasion have struck a bad bale?—No; as a rule, Graders examine a number of bales of every line.

28. But it is possible sometimes to strike a bad bale?—Yes. When the Grader places seventy to seventy-three points on a line of fibre—he is striking an average—I consider under such circumstances he should go through every bale and find out which bales are giving seventy-five and over, because if he is striking a happy medium of seventy-three points, common-sense dictates that some bales must go higher and others lower, possibly sixty-five to sixty-eight.

29. You think he should go through the bales more minutely?—Yes, because it means a loss of £2 10s. or £3 to the miller if it is all put into one line and "fair" grade only.

30. What do you consider a fair medium?—Ten points.

31. Do you not think it would be a good thing for the Grader to grade and let the merchant pass it afterwards?—No. There is too much expense now; to put another shilling a ton on it would mean at the cost of the miller. The fibre has only to drop to £20 or £22 a ton for the whole of the industry to "pass out." There has been another suggestion in the South—that the points should run in fives. I hope that will never happen because a great difficulty now exists in fulfilling orders. A sale of 200 tons is made, say, "good" or "fair," spread deliveries over certain months; often to keep faith with our purchaser exporters have to buy in often at a loss. If the points were limited to five exporters would have more difficulty in completing orders.

32. You told us that Southland cannot produce the quantity of green flax again that it produced last year?—Yes, there will be a reduction of 50 per cent. this year.

33. Are any Southland people endeavouring to make up the quantity required?—Yes; I started planting flax myself, and it is doing very well; but I only started two years ago.

34. You did not know the values were going to keep up two years ago?—No, or else I should have gone in more extensively.

35. I think the Government might do this: If proposals were made to plant flax, they could assist to get the land at reasonable prices?—Yes. If they set the areas aside private enterprise would take it up—I am certain of that. But it will never pay private landowners to convert their swamps into flax-growing areas, because most of the swamp lands are the best lands we have, and flax is too uncertain to wait four years for a crop.

36. Then, you think that if a man is producing good grass he can do better than growing flax?—I am thoroughly satisfied of that, because you have to wait three or four years before you can get milling-flax.

37. Have you any idea of what an acre would produce?—I have gone into that, but it is simply hypothetical. My idea is to plant each root 10 ft. apart, and in rows. I was told by an expert that an acre of well-grown flax 8 ft. high would represent 60 tons. I think this is a fair estimate.

38. And that would take four years to grow?—Yes. Of course, the quantities of flax available for the miller based on the opinion of experts never come within 25 per cent. It is purely a guess.

39. Do you say it would take 8 to 10 tons of green leaf to the ton of fibre?—Yes, 8 tons on the average.

40. What do you estimate as the quantity of green flax to the acre?—It would depend entirely on the conditions. If you have water-power you can save £4 a ton on fibre in cost of manufacture.

41. *Mr. Buddo.*] You said you found fault with the Grader in not discriminating sufficiently with the different grades of flax-consignments. In forwarding consignments and in order to give the Grader some regular line of work, would it not be better when the output was leaving the mill to have some system of local grading in order to prevent every bale being opened and examined?—That would be impossible, because I have already stated that many of the managers of the mills are incompetent, and do not know whether they have manufactured "good fair" or "fair" when it comes to seventy-two and seventy-six points.

42. *Mr. Bollard.*] I understood you to say you considered the condemned flax ought not to be sent out of the colony?—That is so.

43. A flax-miller sometimes—probably through no fault of his own—produces flax that is not up to the mark, and it is condemned: is that not so?—No, it is through carelessness; the competent manager very often visits the paddock to see that the men are doing their work satisfactorily. There is no excuse for allowing hanks to lie on the ground until the strength and colour are gone. We have local manufacturers of rope and twine, and it is possible for these people to make some use of this inferior flax without allowing it to go out of the colony.

44. But supposing the demand is limited, and there is a demand for it in Australia, would you not agree to it being sold there?—I am speaking against my own interests as a miller, but I have not turned out condemned flax. You can see that there is a very small proportion of condemned flax, and I think every discouragement should be offered by the Department to producing it. If sent to Australia it could be transhipped Home.

45. You do not think there is a profitable market for it in Australia?—I do not think it should be allowed to leave our shores.

46. *Mr. Kirkbride.*] You said there were seventy mills working in Southland and only 15 per cent. paid?—Yes, that is right.

47. And yet you said that many of them were managed by good men?—I said managed by men capable of turning our good fibre.

48. You spoke of the Government appointing inspectors. You said there were very few managers of flax-mills who were really good all-round men, that you could count them on your fingers?—That is as far as Southland is concerned.

49. The two statements appear to me to be contradictory when you said there were good men?—An incompetent miller can often make "good fair" out of a medium standard of flax straw by knocking sufficient of it out into the tow-box. The stripping is the basis of the fibre. With good stripping and care in subsequent handling a high standard can always be reached.

50. You suggested that if the Government appointed expert instructors they should appoint practical men who had made a success of milling?—Yes, because you might appoint men of good reputation as millers who had not a sou to their names, proving they were wanting in some essential.

51. It appears to me that the choice would be limited?—In Southland there are men capable, but there are more in the North Island.

52. You say there are millers who would object to the instructors going through their mill at all?—Some of these millers are those who have made a success of milling. Last year was a critical year, and those men who made money I think could make money under any conditions, except, of course, low prices.

53. You said there had never been any dissatisfaction expressed on grading what your buyers had purchased?—Yes.

54. I suppose you were sending Home flax before any Graders were appointed?—No. I think the introduction of the grading system is the salvation of the industry, as it enables expert merchants to buy a stipulated article of manufacture, and we sell it on the same conditions. It also keeps millers up to the mark. We have men in the South who think otherwise, but only one or two.

55. In one case you showed us where a consignment sent Home had been sold on its merits, and had sold very much better than the Grader's marks would lead one to suppose?—That is so.

56. There are some mistakes made, then?—In the instance to which I referred the Grader was too critical.

57. If the Grader puts his mark on it, it is called a tag?—Yes, the Grader's tag.

58. Is it allowable for the exporter to remove that mark?—Certainly not; I did not remove it. I was very careful to say to my people who sold it to dispose of it on its merits. I do not know that they did remove the tag, but they may have done so.

59. You told us that there was very little of No. 1 Grade turned out?—Yes.

60. What is No. 1 Grade?—"Superior"—from ninety-five to a hundred.

61. You say that the most of the flax sent Home is "good fair"?—Yes, from seventy-five to eighty-four.

62. Then we have "fair"?—Yes, sixty to seventy-four. Below that is "common." If the points are altered as I have suggested there should be points for "common" from fifty to fifty-nine.

63. What is condemned fibre?—Forty-nine and under should be condemned.

64. I did not catch the intervals between the standards. You suggested something closer than fifteen points?—A ten-point rise I suggested. In fact, if they recast the points I should suggest "fine" to reach the maximum of 100, and "good fair" ten less, "F.A.Q." ten less, "fair" ten less, "common" ten less. That would bring it down to fifty.

65. With regard to flax-growing, you said the output this year would be less than last year?—Yes, fully 50 per cent.

66. Is that because the flax is not available?—Yes. Shortage of green leaf accounts almost entirely for that state of things.

67. The lower output?—Yes.

68. The thing is this: if the mills are kept working, in time no flax will be available?—Yes, except what is reproduced every four years. A great proportion is not reproduced because of the causes I have already mentioned. In the South there is not the same amount of draining of flax areas going on as in the North. Information should also be at the disposal of the millers as to the proper variety of flax to cultivate.

69. You say you have done some planting yourself?—Yes.

70. Is that hill-flax?—Yes.

71. What land did you plant it on?—On land of poor quality that will not grow anything else.

72. Will it grow luxuriously?—I have a lease of 10,000 acres called the Dome Run, and it has a very prolific growth of flax on a portion of it. Much of the country is such that a goat could not live on it, so it is absolutely useless for any ordinary purpose.

73. In planting flax do you cultivate the land at all?—Not at all.

74. Merely dig a hole and plant it in?—If the land is suitable all that is required is to run a single furrow, cart in the roots, turn back the furrow, and the flax will grow. The roots will even catch on the side of a river and propagate successfully.

75. Very often on the side of streams you see luxuriant flax-bushes?—Yes.

76. But on poor, hard ground it is considered that flax will not grow?—On my land where the flax-plants were sown there was little if any soil, and the flax is doing well.

77. When will it produce a crop?—In this high country exposed to strong sun every three years the flax will be fit for cutting, but it would be more profitable to leave it for an extra year.

78. There was something said about the Grader examining every bale?—It is not necessary, only, as I say, in cases where a line is sent in of ten bales, and the Grader ascertains that on an average it will grade seventy-three points. I think the miller is entitled to have every bale graded and the bales that will reach the highest grade placed there.

79. You are quite sure that grading is an advantage?—Decidedly so; impossible to do business on safe lines in its absence.

80. Did you see anything in the papers during the last three or four months about a letter sent to the Government from the United States market? I think it was from some manager of a prison in America, where they use a good deal of fibre, and import New Zealand fibre for, I suppose, rope and twine making. I have not got the extract with me, but, so far as I remember, the writer said that unless there was more care exercised with the grading no one would buy on the Grader's mark. The letter said that a line of flax had been bought, and it was not at all according to the Grader's marks?—I saw that extract, and we had a similar complaint brought before the Invercargill Chamber of Commerce twelve months ago. But I do not place much weight on such reports, because very often when prices ease the purchaser becomes very captious and critical. It may happen also that the tags have been removed and others substituted. I am sure that this has been done at Home and in the United States. My opinion is that the grading on the whole has been carefully carried out. At the same time I do not think the standard here is a correct standard, and the grading has certainly of late gone up in points. I may have met consumers who prefer a different class of fibre. I think the Government should send samples of standard

lines to the foreign manufacturers who have been using our fibre, and ask for their report upon same. I do not favour sending an expert to glean this information, for this reason: in the first place it would mean a considerable outlay to the colony and without any direct gain, and the probability is that on his travels he might light on some manufacturers who were handling manila or sisal or other fibre, and it would be to their interest to lead him astray as much as possible as to the standard required. When I was in the States five years ago seeking information on fibre prospects, it took me all my time to steer clear of some of these pitfalls, and I see trouble ahead for any Government official after similar information.

81. *Mr. McLachlan.*] You said that experts should be appointed at £800 a year?—I did not say £800. I said some men were making £800. I think £400 would be a very fair salary, and sufficient to induce good men to accept the position.

82. You also said that the instructors should be experts in setting shafts and pulleys?—Yes.

83. Would that not be a duty for a mechanical engineer?—These instructors should be able to say how machines should be set up, and any successful miller is fully competent now, because instructors who are to be of any use to the miller should be a sort of *multum in parvo* in fibre-manufacture.

84. The flax-miller wants an expert at the Government's expense?—Yes, the same as the dairy factories.

85. You say there has been a big loss of £20,000 in the industry last year?—Yes.

86. Portion of the loss, in addition to incompetent millers, might be due to the millers having paid too much for the green flax?—Yes, in some instances.

87. In my district the farmers will not allow men to go along the creeks to cut out the flax unless they get good prices, and then they have to cart it long distances?—Yes; the same applies in the South. The average price with us last season was 6s. A total of about £17,500 was paid by way of royalty. Royalty has reached as high as 14s. to my knowledge. It has been no higher, and the miller who paid that made a failure.

88. Would not indelible brands on the end of the bale do?—Some millers strap their bales with 3½ in. battens, and others substitute calico; but Graders could not brand the battens unless they used hot irons, which would be a tedious process.

89. You suggested a way out of the difficulty by using a corresponding tag inside the bale?—Yes. I have seen since I came to Wellington a suggestion made as to wire being used. I do not agree with that proposal. Merchants in the colony are now fighting the foreign buyers on the question of the tare of 1 lb. to the hundred of fibre, and if we send Home bales with wires in them, no matter how light be the wires, it would give them an excuse for further complaint.

90. With regard to the excellent men that you say are masters of the business: do you think they would be as vigilant in working under the Government in connection with the flax-milling as they were when working for themselves?—I believe men who have made a success of milling have generally made it a hobby, so they would be enthusiastic in their work. I am a general export merchant and stock agent, and took no interest in flax until a year or so ago, but I have now become quite interested and enthusiastic in connection with the industry. It is a most interesting industry, particularly when a paying one.

THURSDAY, 28TH SEPTEMBER, 1905.

EDWARD CHARLES FROST, Flax-miller, Tuakau, examined. (No. 2.)

Witness: I should like to explain. We got an intimation just at the last moment that we were coming down to attend a Committee, and we were very vague as to the object. I understand some evidence has been taken yesterday. Would it be out of place for the Chairman to tell us the object of the Committee and an outline of any evidence taken?

The Chairman: The position is this: Some complaints were received by the Department from those interested in the flax industry generally, and the Committee decided to invite those interested to give evidence on the industry from a flax-miller's and from the exporter's point of view.

Witness: Has any evidence been taken?

The Chairman: A great deal of evidence. There were several Southland people represented here.

Mr. McLachlan: They represented the flax-millers of the South and the Chairman of the Chamber of Commerce, Invercargill.

Mr. T. Mackenzie: Is this Committee for the purpose of finding out if they know how to put their flax on, or to improve the condition of, the market?

The Chairman: It is to try to improve the flax industry generally.

Hon. Mr. Duncan: Some time ago there was a meeting of flax-millers and exporters in Wellington. Some bit of feeling had got up that there was a class of flax which should be stopped from being exported. There was a meeting over that, and I can get you a sample of the flax by-and-by, to show you what was at the bottom of having the evidence taken. Several districts have been writing to me wanting to know when another conference would be held. I do not think it would be for me to hold a conference. I do not think it would come to very much. I thought the better plan would be to get evidence from both sides—form an opinion for ourselves, put it before Cabinet and the House, and stop the downward grade that is apparently staring the industry in the face now.

Mr. Hogg: If you are satisfied we will go on with the evidence. You see the object is a very good one. New Zealand products have a very high standing in the colonies and the Mother-country, and the object of the Committee is to make them acceptable.

Witness: It was only a very short notice I got to come down, I could not call our association

together, consequently I had to take upon myself, knowing their views, to represent them as far as I knew. I just went around to a few of the merchants who are the largest buyers in Auckland as to any complaints they have, and I have first to put their grievances. In Auckland the conditions are altogether different from Wellington with flax coming in and going out. At present we have only two grading-sheds gazetted in which we can have flax graded. A good percentage of it goes away undumped, and does not require to go into a shed at all. The merchants and the millers feel very keenly where they are compelled to have two or three cartages. Where they are compelled to take it into a dumping-shed and out again they feel that that is a great hardship. At the beginning of this month I determined not to sell my flax—that I would send it into the store. I must cart it to the dumping-shed, cart it in and out again, and if I do not want to have it dumped I have to pay 1s. a ton storage for it. My people have a good shed. I have dealt with them for seventeen years. They are large buyers, and they have a shed which will hold a considerable amount of flax. The Grader has to pass this shed every morning and go to the other. I gave instructions to put the flax in this shed at the beginning of the month waiting for a rise. It goes into the shed, and when it is sold I have to have it carted out to get graded. If it is not going into the shipping companies' vessels, not going to be dumped, I have to pay an extra charge for cartage. What we would ask the Committee to recommend is that within a radius of three-quarters of a mile of the shipping any merchant should have the option of putting any quantity of flax he likes into a shed, and have it graded there without any further expense of removal attached to it. I often get a telegram, "Send me down all you have got. Mail-steamer in." I should not be penalised with the expense of putting it into the grading-shed, waiting until the Grader goes around, and taking it out again. It should be graded at the store in which it is, and given all facilities possible. Our association is at one with the merchants on that point, and we would ask for the removal of that first grievance. Then, there is the question of rejected flax. They contend, and I do, that a man should be at liberty to sell his flax to the highest bidder. They consider that he should not be debarred from selling in any market, and that wherever there is a market he should be allowed to send. Sometimes a miller gets a lot of green flax to put through, and it is impossible to get rid of it except through the quality of what is called "rejected." I had some trucks of flax left on the railway-line, shunted into a siding, and they came to me with the leaf quite hot, sweated, and black. I had to pay £1 5s. per ton for it. I had to put it through. I put it through; it was classed "rejected." I got £9 per ton for it. It did not pay me. I could have got £16 per ton if I had been allowed to ship it, or sell on its merits. It was thrown in at their own price to the rope-works. The system is just playing into the rope-works' hands. As far as Auckland is concerned we think where there is a market for rejected flax such as in Sydney, and it can get sold as rejected flax, that we should be allowed to sell it without detriment to the colony.

Hon. Mr. Duncan: How do you know?

Witness: This flax is worked up and sent over there.

Hon. Mr. Duncan: We get plenty of complaints.

Witness: I do not think that a miller, where he gets a leaf which will not be fit for anything else and puts it through, should be debarred from exporting it under the brand. There is another question I was asked to bring up, and I am glad it is in an official capacity, as I should not like to do it privately. It is a matter which casts no reflection on the integrity of our Grader or the position he is in. I dare say Mr. Duncan will know that this Grader's brother is one of the largest buyers in Auckland.

Hon. Mr. Duncan: What is the Grader's name?

Witness: Mr. Johnston. Mr. Johnston's brother is a very large buyer in Auckland, and I think the position is wrong for him to occupy.

Hon. Mr. Duncan: He is not occupying it at present.

Witness: He is, sir—at least, he was on Monday when I left. While I cast no reflection on our Grader for his integrity and honesty of purpose, we certainly think that it would be advisable in the interest of the flax industry to have a change. I was asked by some of the leading merchants in Auckland on Monday to bring that before the Committee. I did not interview those who have representatives in Auckland from Wellington, but purely our Auckland buyers. I think that is all I have to say from a mercantile point of view. Now I come to the millers. I think we hold different opinions—different certainly from what I heard they do down South. Personally I only know two millers who ever favoured having a Grader, and I say it speaks well for our merchants. We have had a first-class lot of men to sell to, and have no need for a Grader. Looking at it in the face, you would think that a merchant who will protect himself as far as possible by buying on as low a grade as possible would take every advantage of the miller, and so they do. They protect themselves as far as they can; that is business—purely business. I may say, speaking personally from all the millers with the exception of the two I have mentioned, that they all prefer to deal with the merchants. They all prefer the out-and-out deal with the exception of those two, and we look upon them as oddities up our way. We have had a splendid lot of men to sell flax to. I do not know one who would take advantage of a miller, and I have had twenty years' experience of flax. Those are the views of the millers generally up North. I have nothing very special to say on that. The next matter I wish to refer to is the want of a standard. We have no standard to work by. We do not know what 65-point flax and 80-point flax is.

Hon. Mr. Duncan: Evidently you do not want it.

Witness: We do want it. It is only six weeks ago I asked a Grader to give me a sample of "good fair." He said, "Write to the Department for it." Three years ago I asked the same question. The reply was, "What will make binder-twine." We want a standard to work from. Men differ. I do not think there are two Graders who, if put into separate rooms, would agree on the points about a hank of flax. I often say, if the same hank were to go in a bale again, they would not get the same points if taken out. Flax varies. There is another point I wish to

mention with relation to Graders. We think that all Graders should be thoroughly successful millers, not men who make a ton or half a ton a week. I do not call such a man a competent miller. All these men, as soon as they are put in steam, their quality is down directly. We want thoroughly competent, successful men, who can turn round and tell the miller where his fault is. I was pleased to see Mr. Feries when he was up there. I thought he was a thoroughly practical man. Then I come to the scale under which flax is graded. The most serious complaint against it is the range. We consider that fourteen points is too great a range for one particular quality. That, I think, is the most serious difficulty, and I believe has been the cause of more serious deterioration than anything else. I sold a lot the other day of 73-point flax, and I said to the Grader, "That is no use to me; I do not want it; sixty-three does for me, the price being the same." I am ashamed when I look into the sheds at Auckland and see the flax. I say the grade of flax has gone down seriously. On Monday morning the quotation in Auckland was £24 for "F.A.Q." and £27 for "G.F." flax. Flax at seventy-three points fetches £24, and flax at seventy-five fetches £27. I want to see the man who will show me that there is a difference of £3 a ton in it. I can make fine flax, but I do not intend to. It pays me better to make a low grade. I take it that none of us is here, sir, for the benefit of the country. We are here to make money. I say if we only had five points to work to, it would be a far greater inducement to work within those. If we want to try to improve the system to work up the flax the wide range we have got now—sixty to seventy-four—is most detrimental to the industry, in that a man certainly will not keep at the top of the grade. Some two years ago I sent flax down here made out of common leaf, and I got sixty-nine points for it. Our fields have been worked for about thirty-five years now, and the flax is not what it should be, or used to be. It will not grow the same in three years as it would in two previously through the severe cutting it gets. Consequently we get all sorts of leaf to deal with. We certainly think that the range in the "F.A.Q." class wants amending. I certainly do not believe in having two "fairs" such as from sixty-five to seventy. I said to a merchant, in discussing the point on Monday, "I can get £24 for sixty-three points and £24 for seventy-three." We would sooner have only a five-point range. If it is "fair" it is fair, and we shall get the same for it. It is similar to a farmer having, we will say, cocksfoot. He shows his sample and says, "I have given you so-and-so." Another man has got machine-dressed, and he gets no more; he does not machine again. It is the same with the flax. We do not want seventy-three points; we do not want seventy: sixty-three is quite good enough for me. We do not want the higher points. We are fighting against it, but it is forced upon us. It is a most serious matter to the industry—in fact, I think it is the main point, and I think it is the cause of nearly all the deterioration—that the men will not keep to the highest for the same money. That, I think, sir, you can see. Then there is another question that crops up. The class of flax that is selling to-day at seventy points, positively three years ago sold as "G.F." flax. I can say positively that our standard is not the same to-day as it was three years ago. Now we want to know, why will not flax sell to-day that three years ago sold as "G.F."? I have come down in my quality. These are grievances that, as I take it, the Committee want to get at the bottom of so as to help the industry up. I can make it as good as any one if I have the leaf, but it does not pay me as well to make it as low down the grade. If the conditions are that I am going to get paid for what I make, I am prepared to make, but not under existing circumstances. There is a memorandum I have through hearing the evidence of Mr. Raymond in regard to the standard weight of bales. He spoke more as an exporter than as a miller. He recommended that there should be a uniform standard of bale. I know a man who is taking his flax twenty-two miles in 1 cwt. bales. He packs his flax 1 cwt. on each side of a horse. Now, these are just as easy to dump as the other bales, and, as far as my own experience goes, I could not do with 4 cwt. bales at all. They have to be carried over a plank on to the steamer on men's backs, and I am not going to ask men to do that. I make eight bales to the ton, or thereabouts. I do not think it has anything to do with the trade whether they make the bales 4 cwt. or 5 cwt., so long as they get the fibre. Then there was the question of a Government Instructor brought up. A capital idea, and a most necessary thing it is to have a man who will go around, see the various mills, and what they are doing, for there are plenty of incompetent men: a butcher or baker will start, for instance, at flax-milling straight away. We have got some oddities up our way, and I suppose there are some in other parts of the country as well—people who cannot make flax. An instructor would be a boon to the colony. Incompetent millers mean a loss to the colony as well as the individual. Another matter as to what the Government should do as regards an instructor is to instruct those who are desirous of carrying it out as to how to grow the seed. I know plenty of people who gathered bushels of seed last year, but they cannot make it grow. Some say "Scald it," others "Steam it," others "Boil it." I think that if the Government were to take it up it would be very valuable, and if they would give us experimental stations I should be very glad. I do not know how to grow seed. I think that would be very valuable for the industry. The acquisition of land for those willing to plant is another question I should like to bring forward. There are a good many millers, and if they could get small areas—say, 100 acres or so—they would go in for planting it—that is, in suitable places—if the Government would give them lands on suitable terms, leaving it optional if they leased it or bought it. The result would pay the colony. Of course, there is a very large outlay in planting flax. I believe Mr. Williams has planted about 250 acres at the Waikato. It would cost over £10 an acre to plant it. It has cost him a good deal more. If the Government would help a man to acquire the land as near his mill as possible it would be important. I go twenty miles on the river. That is a point I would like to urge. Last year our export of flax was about three-quarters of a million.

Hon. Mr. Duncan: Something near that.

Witness: I do not believe that kauri-gum, timber, or gold is equal to the flax industry. There is a future before it, but it is dying out fast. I do not believe there is above 30 per cent. of the flax grown on the Waikato River that there was. There is another matter of a patent I

wish to bring before the Committee. It is just going to be tried in Auckland. The process catches, washes, and scrapes the hanks uniformly, and leaves them dry, and works automatically. I have given the use of my mill to have it tested. There is only one thing I am frightened about, and that is the catching. If it is successful the invention will be a boom for the flax trade. I have seen the flax that has gone through the inventor's machine. It wants no bleaching, and the hank is delivered just as a reaper-and-binder will deliver a sheaf. I would ask the Committee to request the Government to have some one there when the experiment is tried. There will be official notice of it. I have offered every facility I can. I think the next question covers all I need say. There is one thing I have had impressed on my mind for years. I do not know if the Government could justly or legally pass a law that any miller found with flax cut down at the roots is liable to be fined £100. We get it cut out with the spade, and the miller is bound to buy it. You cannot prevent the man destroying his flax or burning it, but you can prevent the miller buying it. I would fine the miller £100 for having it on his premises. The white men and the Natives are all the same as regards this destruction. We get flax in our mill, and it is impossible to feed it—nothing but pulp at the butt. It is a serious question, the destruction of flax. Although I have to buy it in competition I should be glad if the Government could see their way to impose such a penalty, and I would gladly assist in every way I could. I think it is a disgraceful thing the way our flax is being destroyed.

1. *Hon. Mr. Duncan.*] The special question I wish to ask is this: Have you got your mind made up that by supplying flax about sixty-three points, the lowest grade, that it is the most paying for the miller?—Undoubtedly.

2. You were saying that with the quality of flax you have got you would not attempt to make a high grade now that the other pays you better?—Undoubtedly it pays better.

3. Is it possible to make anything like an even grade as low as sixty-four points?—I think you would have a lot of it. There is no bale of flax that has got two hanks of flax alike in it.

4. I think that is quite true. I have seen a good deal of it that I could not tell the difference in, but that does not go for much. Perhaps what suits your district might not suit others. With regard to the grading, you seem to say that the grading is made higher by the experts now than it was two years ago?—Most decidedly. I am speaking of Auckland. It is unquestionably so.

5. Another thing you say about the grading. You say the difference between sixty-three points and seventy points is too wide?—Too wide entirely. For my part I do not want any points at all; if it is "fair" it is "fair."

6. Would it be better if the Grader put points on the bales, and have the canvas tag on the bale so that the buyer can see?—Yes, if points are paid for. I do not care how many you have when points are paid for.

7. That should be a matter between buyer and seller?—Merchants say that it is impossible to have a range of prices for the Home buyer. A 65-point flax is not a sixty-six, nor is a 66-point a sixty-seven; but the difference in the point has no monetary value.

8. Give you the points and let you fix the grades according to your merits?—We like to do business with the merchants straight. Our merchants like the Grader in a sense, although they would sooner deal with me personally. They like the Grader because he is a protection. In case of any claims they can say, "I have not graded it; it is the Government"; they can throw the onus on the Grader. That is the only reason the merchants like it. The merchants had a grader of their own before the Government took it up, and he was paid at the rate of 1s. per ton.

9. *Mr. Kirkbride.*] I understand you to say that you are now putting up inferior fibre to what you were putting up, because of the grading?—Certainly.

10. You ask that the range between the different grades be reduced to five points?—I am not in favour of points at all, unless there is a monetary value attached to them, because practically they are of no use to the miller.

11. You say it is of no value to you to put up flax that gets seventy-three points any more than if you put up an inferior article that would only get sixty-three points?—I get just the same for it. I have seen flax £3 a ton different in value between sixty-three and seventy-four points. I think 10s. is the outside value between seventy-three and seventy-five.

12. Would what the Minister says about the Grader give points and not class at all?—The remarks are correct and quite proper, but I think the scale is simply ridiculous. We all try to make as good flax as we can with the leaf we get, but the miller is going to make what pays him best.

13. Have you heard any complaints of foreign buyers about the flax not being up to the grade since the Government undertook grading?—I saw a letter to the Premier, and it quite expressed my views. It was from the Warde of the Prison Department at Ontario, and the purport of it was, "Hearing that your Government is about to grade the flax, and being buyers of it, we thought we should considerably enlarge our purchases as the grade would be more uniform, but we are sorry to say that the reverse is the fact, and unless there is an improvement in it the demand will certainly fall off."

14. There is another question—because your ideas seem to clash with the evidence of Mr. Raymond, of Invercargill. You would like the miller to be able to send out any kind of flax—that is, flax that has been rejected or is below "common"?—I say that if a miller has, through unavoidable circumstances, acquired flax that would make nothing else but "rejected" quality—if he likes to put that through he should be allowed to get the highest price he could for it.

15. I ask this because Mr. Raymond suggested that this flax that came under "common" quality should be prohibited from export?—Certainly the manufacturer does not make it unless it is impossible to do otherwise.

16. You gave an instance of a sale in which you only got £9 in the local market, where you could have got £16 if you had sent it away?—Yes.

17. One other point you wish to make is that there should be no necessity for you to cart

your flax to the grading-shed if within a reasonable distance a quantity of flax was got together—that the Grader should go there and grade it. Is that what you ask for?—Certainly. What is wanted is that it be graded where it is, and within reasonable limits.

18. And you say that the suggestion about uniform bales is unworkable?—Utterly unworkable.

19. And you believe that a Government instructor would be a good thing?—A very good thing.

20. *Mr. McLachlan.*] I only wondered when I heard the difficulty of having the flax carted from one shed to the other, what relief would the Government give you to get over that difficulty. If you like to store it and hold it over, is the Government to pay the cartage?—Oh, no, sir. I want it graded where it is stored.

21. That would mean, you want the Grader to be travelling back and forwards?—No merchant in Auckland that has a shed is over a distance of half a mile from shipping.

22. Your evidence and that of the gentlemen yesterday is entirely opposite. You want to send away inferior flax to any market?—Yes; we want the grades to rise.

23. *Mr. Bollard.*] What is the principal cause of the flax that is condemned being so low in quality?—The leaf has gone bad.

24. Is it carelessness on the part of the miller?—Not a bit. The miller has nothing to do with it. So far as I have seen it is the condition of the raw material when he gets it.

25. Cannot he refuse it?—You would not refuse unless you shut your door. Where I live last month I took 20 tons that had been lying in a drain for a month. I had to buy it. If it passes as “common” it is a miracle.

26. You suggest that if this flax cannot be sold in the colony it could be sold outside?—It can be sold in Auckland to the Auckland Fibre Company. They have no competition.

27. If sent outside would you put a tag on it saying it is condemned?—Certainly.

28. *Mr. T. Mackenzie.*] What are the standards you would like to have fixed for working to?—As I said before, I do not want points at all, but I would not exceed five myself.

29. I understand that in Manila they have certain terms there covering classes of quality. What standard do the flax-millers want?—The most particular grade they want altered is “fair.”

30. You want the names of grades but not the number of points?—I have no objection to the grades “common,” “fair,” “good fair,” “fine,” and “superior.”

31. You consider it is too wide a range from sixty points to seventy-four?—Yes. Fourteen different qualities in “fair,” and we get the same money for it.

32. You want to have it in a much narrower margin of points?—Some are advocating sixty points to seventy-five. I would not increase the number of qualities.

33. What do they do in the classification of hemp in Manila?—It is not a fibre that is machined at all. They can get a different quality of flax, and we cannot touch it. It is only cut and laid out in the sun.

34. Do you not think it would be better for the millers to agree as to what they really want as a body, and submit that to this Committee than that each individual witness should give his opinion?—I think every man has a right to express his opinion.

35. But we have to sift the evidence, whereas if you met and threshed out what you want it would come to us as the opinion of the body?—Speaking for myself, I should recommend no points at all, but remarks on the certificate to show whether a good one in that quality or a bad one in that quality to show a man what he was buying.

36. Let us come to the observation you made that it paid you better to turn out a certain class of flax—a 63-point flax?—I do not make a 63-point flax.

37. You say it paid you better to make a low-grade “fair”?—I generally get from sixty-nine to seventy-three points, but what you say would pay me better, consequently I have had to come down. Millers have had to come down.

38. What would you designate the quality that pays best?—“Fair” quality pays best. I think the range of fourteen points is too much, and there is no comparison between a 63-grade flax and a seventy-four.

Mr. T. Mackenzie: It seems to me that it would be far better if the millers agreed among themselves as to what they wanted, and then submitted that to us.

40. *Mr. Kirkbride.*] Have you not got a Millers’ Association in Auckland?—Yes, sir.

41. *Mr. Bollard.*] Do you positively assert that if you go in for a high-grade flax you do not get paid for it as well as for a low-grade?—Not in proportion. The grading to-day is not what it was three years ago.

42. You said in your evidence that you could get no monetary value for points?—No money value.

43. Will a merchant give the same for flax graded at seventy-four points as for that graded at sixty-four?—He just gives me the same.

44. There is no encouragement to make a higher grade?—The tendency is to lower.

45. *The Chairman.*] I suppose, with regard to this very important question of grades, you think that, instead of having this wide range of points, which seem to be confusing, it would be much better to have the flax branded boldly by the Government in four or five distinct qualities?—That is what I think—without any points at all.

46. By way of illustration, that there should be, for instance, “superior,” “good,” “medium,” and “inferior”?—Yes, and “rejected.”

47. And if that was done it would be a much better guide to purchasers abroad?—Precisely.

Hon. Mr. Duncan (to witness): You seem to think there were no complaints or trouble about some of the flax of inferior quality; so before you go I will just ask the head of the Department to read a letter he has got.

Mr. J. D. Ritchie read the following extracts from the Produce Commissioner’s report dated the 5th July, 1905:—

"The complaint is made that New Zealand hemp bought by the Independent Cordage Company (Limited) from ——— as 'fine Wellington' was not of the quality associated with that grade, and that no Grader's tickets were attached to the bales. I have seen ———. They admit that an order for 'fine Wellington' hemp was received by them. They say that when this order had to be executed there was no New Zealand hemp of 'fine' grade available on the market here. They therefore selected from their stock of 'good fair' hemp such bales as on examination they felt satisfied were of sufficiently good quality to pass as 'fine Wellington.' These selected bales they forwarded in fulfilment of the order, invoicing the parcel as 'fine Wellington.'

"——— acknowledge that they received complaint regarding the quality of the hemp forwarded by them to Toronto as being inferior to 'fine' standard, and that they made a concession in the price accordingly. ——— state that in their business the New Zealand grade-mark is only recognised when purchasing shipments of hemp to arrive. After being landed and passed, and when being offered for sale by auction, they pay no attention to it. Sales are then effected by sample. Bales taken from the bulk are opened for buyers' inspection, and sold according to the quality as inspected.

"I believe it is a common occurrence for merchants dealing in hemp to fill orders received from their customers with lots which they may consider suitable for the purpose, irrespective of grade-marks. Although sales that may be effected in New Zealand or in this country through brokers of parcels for shipment from the colony are made subject to the Grader's certificate of quality, such certificate is not generally recognised on the market here after the hemp passes out of first hands. The grade-tag, being easily removable, is often taken off the bales. In fact, it is no uncommon thing to find hemp arriving at the docks from the colony with no grade-tag attached.

"That the substitution of hemp of inferior quality for that recognised by the grade-tag is hurtful to the New Zealand hemp industry I am satisfied. What action to take to prevent merchants doing as ——— have done in the case complained of it is hard to suggest. The hemp is purchased by them, handled in their warehouse, sorted as they desire, and sold and sent out to their customers in the course of their private business. It will therefore readily be recognised that it would be difficult for any supervision at this end on behalf of the New Zealand Government to stop the practice. Were it possible to prevent the shipment of New Zealand hemp from the colony unless the Government grade-tag was attached to each bale, and were it further possible to compel the sale of hemp in this country only with the tag so attached, and to instruct the manufacturers using it here that they should see that the tag was attached, then some good might be done. Under present conditions, however, I am of opinion that it is only so far as the sale of shipments arriving from New Zealand direct are affected that the Government supervision can be of value."

Witness: I am very pleased to hear that letter. I did not think the grading was worth the value of the tag itself.

OSWALD GARDNER, Flax-miller, Kereru, examined. (No. 3.)

Witness: I must say, as the Flax-millers' Association which met here (I think in March) brought down definite resolutions, that I was rather surprised at the remarks of the Hon. the Minister (Mr. Duncan), because I think we were almost unanimous in the resolutions we did bring down.

Hon. Mr. Duncan: The flax-millers of the colony were not represented there.

Witness: I think all but Auckland.

Hon. Mr. Duncan: You had neither Blenheim nor Southland.

Witness: The main question before us is the question of a better system of grading, dwelt on by the gentleman who has just sat down—that we all indorse. In the first place our grading is not satisfactory. You will understand that in our present system Graders are chosen in a manner which appears to the millers not very satisfactory. We get men that we really know nothing about. We think that a Grader should be imported and appointed who has been a consumer, and has had experience in the consumption of our flax. Nearly all the millers know how to dress any sample of flax, but do not know what sample is required by the different consumers. One likes a sample stripped too fine, evidently not laying much stress on strength; another lays stress on some other point; and so on. We would like to have a Grader appointed who has had experience in the consumption of flax, and who would be able to tell us what is required for the different purposes for which flax is used. There is no standard to guide the Grader; he simply carries the standard in his own head, and we have no redress. We have simply to rely upon his opinion. We have had a number of Graders in a very short time, and each Grader carries his standard in his own head. We do not see that there would be any difficulty in the Government choosing, with the consent of the Millers' Association and with the consent of the Graders, samples of flax with the lowest points in each grade. I will just read a resolution carried by our last meeting here: "That, as a standard for millers, merchants, and Graders, two bales of hemp of lowest point in each grade, chosen by a committee appointed by this conference, and paid for by the Government, showing the points awarded, be graded and deposited at each port of export in the colony, and a similar two bales of each grade be forwarded to London." I would like to explain to this Committee that the grain trade in America is carried on on similar lines. There is a conference annually, and they choose samples of wheat which are the grades for the year. There does not appear to be any difficulty in carrying out a similar suggestion in regard to the grading of flax. On the question of points in grades we were almost unanimous, and this resolution was carried: "That the mode of points be altered to the following, viz.: "common," fifty to fifty-nine; "F.A.Q.," sixty to sixty-nine; "G.F.A.Q.," seventy to seventy-nine; "fine," eighty to eighty-nine; "superior," eighty-nine to a hundred. The gentleman who last gave evidence dwelt upon this question pretty fully. The position is this: There are a certain number of different grades with a range of, in one case, fourteen points. That means this: that in that grade, which is

called "fair," the miller may dress hemp that barely comes up to the higher grade. Another miller may dress hemp fourteen points lower. The merchant gives no better price for the better quality in the same grade than for the lower, and the suggestion was that the range of points should be reduced. Our proposal did not go as far as that made by Mr. Frost, but we make the difference ten points in a particular grade. Another question referred to by the last witness was the raw material. This is a question that all the millers are anxious about, because undoubtedly the more we cut our flax the weaker it gets, and we find in time the quantity obtained per acre is much lower than it was some years ago. Many in the Manawatu district have been planting flax, both with seeds and with plants, and we have been fairly successful; but I should like to point out that there are numbers of different qualities of flax. Some will produce 1 ton of fibre from $6\frac{1}{2}$ tons of the raw material, while others will take $10\frac{1}{2}$ tons per ton of hemp. I do not think that any millers have made the experiment as to what is the best quality to plant. The Government has taken this up to some extent, and have had planted at Levin different samples; but these will take eight or ten years before they can give a fair test, therefore we suggest that they might obtain a quantity of the flax of different qualities and make a practical test, without waiting until this is grown. There is another point I think some of our millers are interested in—that is, the question of a Government expert. We all feel undoubtedly that the quality of hemp going from the colony is not as good as a few years ago. This is partly due to the wide range in points already dwelt upon, and partly to the fact that a number of men have gone into the milling industry practically without experience. And we think it would be a good thing if the Government would appoint an instructor, and it goes without saying he should be a competent man. Another suggestion made by some of the millers is that the Government should conduct experiments in the dressing of hemp from the raw leaf to the bale—say, that they should give a bonus to the miller and have the right of using his mill as an experimental mill. If near a railway (which would be desirable) it would be accessible to a number of millers. Undoubtedly we destroy raw material by cutting it as we do. I think we have got over the difficulty the Auckland gentleman spoke of. The millers of this district do not get the quality of green leaf into their mills that he spoke of, by the simple process of refusing it. We think the Government might make an experiment in cutting the green flax. By taking the outside leaves they could give us an indication as to the effect on the plant, the cost, &c. Some have done this, but their experience cannot carry the weight it would if the Government did it systematically. Another point which I think is most important is the question of branding hemp—that is, we have no check whatever on the distribution of our flax once it leaves our colony. Under the present system a very small tag is fastened to the bale, and there is nothing to prevent any one from pulling this off of fifty or sixty bales in a quarter of an hour. We suggested at the last conference "that in future all brands be marked on battens, and that an addition of one X be added to the brands of 'F.A.Q.' bales and two Xs for 'common' bales, and that a tag be put inside the bales." That appeared to me—and especially the last point—as a most practical suggestion, and our Chief Grader said there would be no difficulty whatever in having a calico brand inserted in the middle of the bale so that the Government brand could go to the consumer, and could not be extracted without opening the bale. Another point that I do not want to lay very much stress upon but have been asked to bring forward by a number of the millers is a suggestion to the Department. Under the grading system one of the most important things is that we should have confidence in the Graders. We have had Graders appointed to the Port of Wellington that we have known little or nothing about. It takes some time for the miller to get confidence in the Grader. We should simply like to draw the attention of the Department to the fact that just as we have got confidence in our Graders they have been removed. We recognise that it would be unwise to interfere in any way with the working of the Department, but two Graders who gave every satisfaction to the millers have been removed from the Port of Wellington. Undoubtedly it may be said that those Graders are sent to other localities for the benefit of the colony; but Wellington is the most important port, and, if possible, we should like to see this state of things remedied. It appears from the remarks of some of the questioners that they think the millers are not unanimous. In the central portion of the colony they are practically unanimous. We have not been able to have conferences with the Auckland representatives, but both millers and merchants are, I think, satisfied that grading is necessary.

48. *Hon. Mr. Duncan.*] There is one point you seem to have laid great stress upon—all the millers to have a sample to work from. Supposing you have a sample and that it is to be compared with the classifying of the stuff, how long would it stand? You would continually have people disputing it?—In the first place there would be no need to pull the sample about, except in case of a dispute—in fact, the Graders themselves are in favour of the system. Certainly I think it would last for six months without deteriorating—probably it would last for a year.

49. Is there anything apparent in the green flax to show the quality of the stuff in it before you put it to the mill?—As a practical miller of eighteen years' experience, I do not know what fibre I am going to get out of it until I try it. There are a number of different qualities, and millers have not facilities for getting different qualities. A miller may have two or possibly three qualities.

50. You were still of the opinion that the grade mentioned by the conference here would be better than the one in existence now?—Yes, that the points should not be so wide as they are at present, and I think the last witness explained the reason. The reason is that a miller will not dress the highest quality in a particular grade when he can get exactly the same price for a lower quality in the same grade.

51. *Mr. Kirkbride.*] You said that the quality of the flax the colony is exporting now is not as good as formerly?—That is so.

52. And that this was largely due to the system of points?—Yes.

53. You think it would be a very great advantage to have a sample to go by?—Undoubtedly.

54. That is, to work by?—Yes, a sample in each grade.

55. You also appear to be of the same opinion as the last witness, and you were speaking for the Flax-millers' Association?—Yes.

56. You are of opinion that there is too great a range in the grades?—Yes.

57. Speaking of what the Minister just said in regard to the weight of fibre you get from, say, a ton of green flax, does it make any difference the kind of land it is grown on?—That is what we should like to have proved. Some flax grown on swamps produces more fibre than other flax grown on similar swamps.

58. There is a larger weight of fibre in flax grown on light land than in the case of flax grown on swamp land?—We frequently find a different quality of flax grown on light land, so cannot tell whether the increase is due to the land or the species of flax.

59. You spoke about the different qualities—about there being no check on the different qualities and check in other countries?—We propose that there should be a brand inside the bale. Under the present system each miller puts his brand on a batten, and we suggest that there should be a Government stamp put on the same batten; under the present system they have simply a small tag, which can be torn off quite easily. I recognised yesterday, when I heard Mr. Raymond's evidence, that it was very easy to remove those tags. He gave a case of a line which fetched a much higher price when the tag was removed.

60. *Mr. McLachlan.*] Only one thing occurred to me. Have the Natives no further information than the Europeans about the quality of the flax?—I have inquired from them, but I cannot get any information. In their own dressing process they only choose the very centre leaves. We think it weakens the plant considerably. I heard years ago that the Maoris knew the proper quality of flax to produce the finest fibre.

61. *Hon. Mr. Duncan.*] About these battens—they often drop out?—Yes, but the tag inside would be a proper check on that. They might drop out during the actual dumping process, but after that they cannot drop out. Of course, you must have the brand on the outside for the convenience of the distributors, but we think there should be a brand inside.

Mr. Frost (previous witness): If you would allow me to give a little information to the gentleman. The Government issued a work by Dr. Hector on the varieties of flax some twenty or thirty years ago.

62. *Hon. Mr. Duncan.*] Could you tell from the green flax what fibre it would turn out?—I can go on the hill and tell what will be a good cracker for my whip.

ALFRED SEIFERT, Flax-miller, Palmerston North, examined. (No. 4.)

Witness: I practically agree with all the previous witness said, and you could practically take his evidence as mine. I consider standard bales necessary. In regard to samples, it is not necessary that every person should be continually handling the hemp. In most cases there could be protection from handling it too often. You could make the miller pay £1 for the sample. Next as to the points in grading. Of course, we were thoroughly unanimous that there should be ten points and not fifteen in "fair" as at the present time, and only five in "superior," and we think it would considerably help the quality if the points were reduced to ten. The next matter I wish to speak about is in regard to condemned hemp for export. I cannot see why hemp should be condemned for export. I never sent down hemp that was condemned. One time I went very near it with hemp that had had a flood over it, but, fortunately, it passed as "common." I do not think that shipping this very inferior hemp would be detrimental. We have at the present time five grades. Another point some of us have spoken about is whether the present system of grading is brought under the notice of manufacturers throughout the world. I dare say complaints have frequently reached the colony about our style of dressing our hemp. We should be pleased if we could get them when they arrive.

Hon. Mr. Duncan: If you appoint a place, that could be done.

Witness: In regard to the raw material—that, as Mr. Gardner points out, is getting a very serious question. In all the swamps that twenty years ago cut large quantities of flax the crop is getting lighter; but we do not know the best kind to plant—that is, what will mature the quickest and give a high percentage of fibre. Quick maturity is just as important as a high percentage of fibre. I think instruction to millers would be a very good thing, but I do not see that it would do any good unless the Department conducted experiments. If the Government put on an instructor and he made experiments, I think you would find that the oldest and best millers would be the very first to ask such experts for advice.

GEORGE SIMPSON, Flax-miller, Foxton, examined. (No. 5.)

Witness: The remarks that you have heard I fully indorse. Of course, the resolutions that we brought down carry conviction, but I want to get a little further ahead than that, and I want to give to you a business proposition. I think it is only fair, where a contract is made between two parties such as a Grader and a flax-miller, that there should be some form of redress. If there is a disagreement at the present time there is nothing to do but sit down and take the Grader's opinion. I think there should be an arbitrator appointed to judge between the Grader and the miller. It seems to be manifestly unfair that we cannot get any redress, and I think that that should be taken seriously in hand. Another thing—with all due respect to the Graders—I think we want a man at the head of the Department who is thoroughly cognisant of the needs of the manufacturers. As regards the grading, we have no sample to go by—nothing to grade up to—and the result is that the millers do not grade up to anything. It has been said, and, I think, with justice, that Graders are put on, and we know absolutely nothing about them. We want a man at the head of affairs who knows what the manufacturers want. As a matter of fact, now you get your returns sent up from the Graders—you will get 84-points stuff and 60-points stuff,

and you will get exactly the same remarks on the stuff. You tell me this is graded. We should have some sample.

Hon. Mr. Duncan: Can you produce such a statement?

Witness: I can send it down. I have had 85-point stuff and 65-point stuff, and I have had exactly the same remarks on each. I maintain that it is manifestly unfair without having a sample to grade to—also some appeal; it is only right that there should be. A resolution was moved to that effect, and also that any miller feeling aggrieved should, on a deposit of £5, have the privilege of appealing to the arbitrator. With regard to the making of experiments. That is a part of the work which the Government might very seriously undertake, seeing that they are experimenting with produce of every other kind, because I am sure the time will very shortly come when, if the flax industry is to be kept going, it will be a matter of planting the flax. I indorse all that has been said by the previous witness. There are five of us here belonging to the Flax-millers' Association of Foxton.

63. *Hon. Mr. Duncan.*] What is the objection to the remarks made by the Grader?—You generally find “Badly washed,” “Badly stripped,” “Badly scutched,” “Badly padded.” You must not tell me that the sample with eighty points will carry the same remarks as that with sixty-three points. All those millers will tell you the same thing. Of course, I am not placing the blame on Mr. Fulton here.

Mr. Fulton: I am responsible to a very considerable extent.

64. *Hon. Mr. Duncan.*] You said it was manifestly unfair that there was no appeal from the Grader. Did you ever hear of any of those complaints in the grading of butter?—You have perhaps one of the best men in the world at the head of that Department. It just amounts to this: the Graders who are put in probably looked after a stripper in their time, and possibly that is all they know about it. If you take three bales in three different sheds and let the Graders change about, you will have different results.

65. If they grade within a point or two, I consider they are good Graders. It is almost impossible to get a sample bale?—I do not say that it is. What is impossible about it?

Hon. Mr. Duncan: To keep it as to quality; it deteriorates in the keeping.

66. *Mr. Kirkbride.*] I suppose Foxton is a great flax country?—One of the largest in the North Island.

67. Do you millers often have differences with the Grader?—At times, of course.

Hon. Mr. Duncan: I will show you where there were some differences when they finish.

68. *Mr. Kirkbride.*] It seemed to me that there would be certain losses accruing to the millers where there would be differences?—Certainly.

69. And you ask that where there would be differences there should be arbitration?—Certainly; it is only fair and right that there should.

70. Your statement in regard to a Grader who has been merely a scutcher seems to convey a reflection on the Department in their choice of men?—I cannot help that, sir.

71. *Mr. McLachlan.*] You say that the same remarks would appear on all grades from eighty-five to sixty-five?—Yes, “Badly washed,” “Badly stripped,” “Badly scutched,” “Badly padded.”

72. Do they never say “Well scutched,” “Well dressed”?—I never heard one in my life say it. You never hear about it being well done.

73. *The Chairman.*] Are you of opinion that a man who had been a manufacturer of the fibre would be the best?—Yes.

74. Are you in accord with the other witnesses about having a label in the middle of the bale?—Certainly. That, in my opinion, is the cause of the complaints.

75. Have you had any experience of the removal of tags?—I could not say that.

LETTER PUT IN BY HON. MR. DUNCAN ON 29TH SEPTEMBER.

Hon. Mr. Duncan: Mr. Ritchie desires me to put in this letter with regard to the evidence given by Mr. Simpson, of Foxton. It is very short.

By consent of the Committee the following letter was put in after having been read:—

Department of Agriculture, Head Office, Wellington, 29th September, 1905.

The Hon. the Minister for Agriculture.

WITH reference to the evidence given by Mr. G. Simpson before the Agricultural, Pastoral, and Stock Committee of the House of Representatives yesterday regarding the grading of phormium fibre, and with special reference to his statement that the Graders' remarks were always the same—viz., “Badly stripped,” “badly washed,” “badly scutched”—whether the points allotted were sixty-three or eighty-three, I beg to inform you that the duplicates of the reports on his fibre graded since the beginning of this year have now been produced by the Chief Fibre Expert, and I forward them herewith for your information. They disclose the following facts:—

1. The points allotted to Mr. Simpson for forty-four parcels during the nine months have varied from fifty-nine to seventy (with three exceptions, when his fibre scored seventy-one, seventy-two, and seventy-five respectively, the Grader noting the words “Bare grade” on the report of the 75-point parcel). It will thus be seen that during this period this fibre has never been graded so high as eighty-three points, and has rarely come within a dozen points of that standard.

2. The Graders' remarks about the different parcels vary very considerably according to the different fault in the preparation of the fibre.

3. During the period Mr. Simpson's output has been graded by no less than four different Graders.

It will thus be seen that the statement in question is very misleading.

JOHN D. RITCHIE, Secretary.

ARTHUR EMERSON MABIN (Levin and Co., Wellington), representing the exporters, examined. (No. 6.)

Witness: I refer to one or two points that have come before the Committee. The first is regarding rejected flax, and I think the view of the Chamber of Commerce is that all flax should be allowed to find its proper market. There is no objection even to the worst grades going out of the colony as long as they are branded according to the grade. For instance, flax is required for all sorts of purposes—for mixing with manila, making binder-twine, ropes, lashings, &c. And the stuff we at the present time are refusing to allow out of the colony can find a good market in the United Kingdom, Australia, and elsewhere, and it can do no possible injury to the trade as long as it is branded with the brand of its grade. The Minister at the Conference mentioned that binder-twine could be made out of some of this rejected flax. I think we might let binder-twine manufacturers look after their own interests, and they are not going to make twine out of a class of flax that will ruin the sale of their twine in the future. They will use rough flax for other purposes. Another point raised by Mr. Frost is with regard to the grading-sheds. I think it is only right that flax should be graded where there is an accumulation of flax, whether in a grading-store or not. This affects Wellington, where Blenheim and Picton flax passes through. It is desirable in many cases to have flax graded in the Blenheim store and shipped direct from there without any overhauling in the Wellington store. I suggest that Blenheim merchants be allowed to have it graded in their stores there. The objection, I believe, is that it leaves tags open to removal and to fraud; but there is nothing in this objection. In regard to the range of points, I agree *in toto* about the range for a particular grade being confined to ten. I do not agree with Mr. Frost in his idea that they should be confined to five points. I cannot agree with Mr. Frost in the idea that the Government should give points alone and say nothing about the grades. The system has been built up by thirty or forty years' use, and the names for the grades are trade terms which it would be impossible for the Government or anybody here to upset. What we want to do is to bring our points into conformity with the trade terms. With regard to the branding of the bales—in this point lies the secret of the complaints arriving in the colony. As members of the Committee are aware, a large quantity of flax is shipped marked imperfectly, and the shipping companies acknowledge no responsibility for marks or numbers. This should be rectified. We cannot compel the shipping companies to do anything until we have put marking on a fairly firm basis. To my mind battens seem to be the only possible way of getting out of the difficulty. The flax is not undumped in London. It goes right through to the manufacturer, and the battens are securely held by the dumping-bands until the flax arrives at the manufactory. The suggestion of the Conference was that the grade should be shown by Xs, and if this suggestion were adopted you have got the whole history of the flax shown on the battens and on the bill of lading. The brand and the grade is shown on the bill of lading thus: Awa, Awa X, Awa XX, Awa XXX. If we have wooden battens insisted on and the grade shown on them, and let the system of grading and marking be known throughout by means of the High Commissioner the whole trouble would be got over. Wrong qualities have been delivered by the shipping companies at the other end through the labels having been lost; and consequently there were complaints. I agree with the previous witnesses with regard to standard bales, and also with regard to the court of appeal. I have a suggestion to make: If more confidence were felt in the Graders generally there would be less demand for an arbitration court. Mr. Ritchie has been very fortunate in other Departments, such as having Mr. Gilruth and Mr. Hyde and Mr. Kinsella at the head of their Departments. I think that if he had a man from a binder-twine factory under him, of some ability, there would be very little demand for an arbitration court. It is hard that a miller should be penalised, and have no court of appeal, when he has no confidence in the grading of his flax.

76. *Hon. Mr. Duncan.*] You say it is manifestly unfair that there should be no appeal from the Grader's certificate, and that it might not do any harm to export inferior flax?—None at all.

77. Do you know what brought down the price of the North Island mutton?—I do not know much about mutton, but I know a good deal about flax, and I know that exporting inferior flax, as long as you call it such, will not injure the market.

78. You know very well that everybody tries to make money; so do you and I—?—I have not been able to, so far.

79. And when they get the flax there they endeavour to make it into an article that is unsuitable, and the farmer says, "I will have no more New Zealand twine"?—They will not make binder-twine that they cannot sell.

80. I know as much about binder-twine as any man in the North Island, because I used it. With regard to the Xs for a grade, would it not be the easiest thing in the world to add an X?—An additional X would lower the quality.

81. I do not see why it would not be as easy removing them as a tag?—The battens suggested should show a rough surface, so it would be easy enough to find out. No one could interfere with the Xs without it being plainly seen the batten had been tampered with.

82. *Mr. Kirkbride.*] I was interested to hear that Mr. Mabin spoke for the Chamber of Commerce, and they were agreed that all flax should be exported?—Yes.

83. I suppose your idea would be that there are purposes for which the most inferior kinds of flax are used at Home?—Yes.

84. I think you could draw a parallel between wool and flax, and we certainly send Home inferior wool. I was rather disappointed with Mr. Mabin with regard to the reduction of points between grades. Do you not recognise that there would be a great difference in the quality of flax?—You misunderstand me. I agree with the Flax-millers' Association that there should be a range of ten points, but disagree with Mr. Frost when he says the range should be five points.

85. I understood you to say it should remain as it is?—Oh, no.

86. You also favour the idea that a Grader should go wherever there is a quantity of flax ready for export?—Yes.

87. The present system entails the expense of carting it to and fro?—Yes.

88. *Mr. McLachlan.*] Mr. Frost saw a difficulty in uniformity of bales. Do you approve of it?—No; I do not think there is any necessity to bring about uniformity in bales.

89. *The Chairman.*] Do you approve of the proposal to insert a label in the centre of the bale?—Yes.

90. Is your firm largely interested in the export of flax?—Yes.

91. Has it been your experience that any tags have been removed in transit between here and London?—I have noticed it on the wharf here. I have seen tags removed by night by means of rats. I dare say it occurs in London.

92. If branded with Xs, and the bill of lading corresponded, do you think it would be an improvement?—I think we should get the shipping companies into line, and if we can get correct deliveries made in London a great many of the complaints about quality will end.

THOMAS LIND, Flax-miller, Shannon, examined. (No. 7.)

Witness: I can only corroborate what Mr. Mabin has said. As far as I am personally concerned, our present grading is quite satisfactory. Undoubtedly the points should be reduced to ten. But the question is, where should the five points be taken from? I do not suppose we could lower "good fair" by five points, and if we rise "fair" by five points it is hard upon the other. I quite agree with what Mr. Mabin has stated. We are quite satisfied with the grading. When we cut flax that we know will produce a certain quality we work for that quality.

At this stage a hank of flax was produced and handed round.

Witness: This is a process of bleaching which can be well adapted to New Zealand flax, and it would be a great improvement in it.

The witness handed in a description of the process.

Oxychlorides.

Requirements.—(1) A 7-horse-power engine to drive the dynamo at $3\frac{1}{2}$ volts; (2) dynamo; (3) machine, about £300.

This machine produces 4 tons, or, roughly, 880 gallons, of bleaching-solution per hour, or an equivalent of chlorine at less than 1d. per pound. Solution after use can be repassed through machine and reused without loss of salt. Materials used, water and salt—6 per cent. of latter sufficient. Strength of solution can be varied to suit different materials by the speed at which the solution is passed through the machine.

Advantages.—No time in the solution, and no acid required. Loss in substance or weight, one-third as compared with old. Better colour. Cottons can be bleached by one process. No injury to strength of material. Chlorine of lime at, say, £7 per ton equals about $2\frac{1}{2}$ d. per pound of available chlorine as against 1d. per pound oxychloride.

Advantages of Manufacture and Resulting Solution.—The advantages of using the oxychloride process and apparatus for the production of chlorine are principally the extreme simplicity and economy as compared to other well-known processes for the production of chlorine. In the production of oxychloride by this process our apparatus is the important feature, as with it we are enabled to produce the solutions direct at one operation and continuously from solution of salt or base salts of various densities. We have worked with success using solutions varying from 3 per cent. to saturation. Oxychloride can be made by our method wherever sea-water or brine can be obtained, as it is not necessary to first obtain the dry salt as in all other methods for the production of chlorine. It is not necessary to have even commercially pure salt for our purpose, as the base salts such as are found in various countries are equally suitable—for instance, the base water and salts of Western Australia, Salt Lake, Utah, United States, &c. These salts, containing large quantities of sulphates, as well as chlorides of the various earth and alkaline metals, are thereby rendered quite useless for the ordinary methods of producing chlorine, but are available for our purpose. The production of oxychloride-solution entails no elaborate chemical plant, as is the case in the production of lime-chloride, which is chiefly the present commercial source of chlorine. It is a known fact that in England alone there are annually produced over 400,000 tons of chloride of lime, which is used in bleaching, &c. Chloride of lime is a very unstable compound, and at its best contains only 30 per cent. of available chlorine, with 70 per cent. of a harmful and useless absorbent. The oxychloride-solutions can be manufactured in any country and on the spot where required for use, the expense of carriage, handling, &c., being thereby avoided. In the majority of cases the sea-water brine or base salt costs nothing; in fact, are waters which up to the present time have been considered as useless—for instance, the base water of Western Australia, which in many cases has to be distilled before being applicable to even mining purposes. The cost of producing the oxychloride-solution from these sources is comparatively trifling. As the quantity of oxychloride necessary in these solutions for the recovery of gold, bleaching, &c., is very small, the cost of electrical power is correspondingly small. The production of oxychloride can be regulated according to the strength of solution required—that is, the time taken by the solution to pass through the apparatus. In the recovery of metals such as gold, &c., from their ores it has been found advantageous to use solutions that do not act rapidly upon the base metals, &c. The oxychlorides are satisfied compounds of acid radicals and alkaline metals, and do not attack the pyrites as readily as free chlorine; therefore are available for the recovery of gold from pyritic ores. The solutions of oxychloride do not give off free chlorine, and therefore there is not the waste of chlorine as in the case of solutions in which free chlorine gas has been absorbed by water. In the manufacture of oxychloride it is not necessary to have sealed chambers, as in the case of the chemical production of chlorine, where the escape of the free chlorine must be provided against. Hence the necessity of Government legislation to provide protection for workmen in the industry. In the production of chlorine from the oxychloride, the evolution of the chlorine may be described as gradual—that is, as compared with a solution in which chlorine gas

has been absorbed, as in the following case where the chlorine has been first manufactured by the decomposition of $\text{NaCl} + \text{MnO} + \text{HSO}$, the chlorine has been set free, and is then passed into water for use for gold-recovery, &c. This chlorine is free gas, dissolved in water. The chlorine as liberated from the oxychloride salt is in a nascent condition, and is therefore more active; being liberated in contact with the ore it is in the best condition to combine with the gold, tellurium, &c. Much depends upon the various uses to which the solution is to be put as to the percentage of salt and the electrical power required.

Our apparatus is so constructed that the electrical resistance is at its minimum, enabling us to produce the oxychlorides without the expenditure of the high electro-motive force that has hitherto been found necessary. This means low cost of production of the oxychloride-solutions, small wear-and-tear of the plant, being enabled to use large cells, and at a low cost of maintenance. Hitherto the apparatus that have been devised to bring about similar results have been constructed with necessarily small anodes of platinum or platinum iridium—costly to provide, and entailing high electro-motive force to pass the necessary current.

Cost of Production.—The cell now in course of erection will require 7-horse power to generate 1,492 amperes at $3\frac{1}{2}$ volts. This current will produce in one hour for each ampere 1.3236 grams; that is, about $4\frac{1}{2}$ lb. of free chlorine per hour at a cost of $3\frac{1}{2}$ d. Assuming that at ordinary chlorination-works a solution contains 80 grains of available chlorine in a cubic foot of solution, it works out at something like 6 oz. of chlorine to the ton of solution. At this rate this cell will produce sufficient chlorine for $3\frac{1}{2}$ d. for 7 tons of solution. The above costs are based on coal at £1 5s. per ton, and a consumption of $2\frac{1}{2}$ lb. of coal per electric horse-power, and assuming the use of salt water or brine. Purchasing salt at £2 per ton, the total cost would be about 1d. per pound of chlorine. According to Dr. Kellner, 2,800 kilos. (2 tons 15 cwt.) of goods can be bleached with a solution containing 3 kilos. ($6\frac{1}{2}$ lb.) of chlorine, costing, by our process, with purchased salt as shown above, 6d.

DEAR SIR,—

31st March, 1905.

In reply to letter from Messrs. Lind and O'Connor, flax-millers, Shannon, New Zealand, we beg to give you the following information based on bleaching the sample they sent to you and half of which we enclose for transmission to them.

1. The sample was bleached by us by passing oxychloride through it for two hours, then washing the fibre in water, and drying. We think that they would find that the most convenient way in practice; and concrete vats should be used, with a false bottom of perforated tiles, through which the liquor would pass to admit of circulation. The liquor passing through false bottom is withdrawn from concrete vats and pumped back to electrolysing machine to be brought back to strength. This rate of circulation can be arranged as required for the speed of bleaching. The process should be very cheap indeed, and result in enormous saving of time as compared with present methods. Further, our liquor does not injure the tensile strength of fibre, whilst bleaching in the open for ten to fourteen days must do so. It would be as well to have a wringer between bleach-vat and washing-vat, so that the oxychloride liquor may be expressed as far as possible, and thus economize salt. If the colour of our bleach is not exactly what they want, it is only a matter of a very little more or less time to get it, and only practice can determine that. The weight of sample was 34 grams before bleaching, and 33 grams after bleaching, so that there is practically no loss of weight. You will observe that some portions are not bleached, and we must explain that these portions are the outer skin of the plant not removed by the scutching-machine, and which will not bleach without an alkali treatment. That, however, is unnecessary, as the spots unbleached will probably not show when spun. In any case the quality of the bleach will depend on quality of work done by the stripper—that is, the cleaner the fibre is stripped the more even the bleach.

2. There are no fumes from the oxychloride liquor, and it is not poisonous or dangerous to life.

3. It is not corrosive, and will not injure the hands. On the contrary, it is a splendid antiseptic, and is used in hospitals in surgical cases.

4. Unfortunately, the solution cannot be shipped to New Zealand, because it would have a bleaching effect on the wood of the casks, and its strength would probably be exhausted on arrival.

We shall be glad to make any further tests for your friends, or supply any information they may desire.

If they decide to adopt our process, they should advise us what quantity of flax they propose treating daily, and if eight, ten, or twelve hours a day.

Yours, &c.,

A. C. Arthur, Esq., Winchester House, E.C.

FOR OXYCHLORIDES LIMITED.

DEAR SIR,—

62, London Wall, London, E.C., 31st March, 1905.

Yours of the 9th February, enclosing a specimen of New Zealand flax with various questions as to the time, &c., for bleaching same with oxychloride. I have laid your letter before the Oxychloride board, and I now enclose you their answer, which, I think, deals with every one of your questions, and fully and satisfactorily explains them. Also, I am returning you the sample bleached.

You see it would be useless to send any of the liquid out, as it loses its strength, and therefore it is necessary to have a plant on the spot to make it; and when returning the liquid you have used through the machine it is as good as when first made. What seems to me a very important point is that the bleaching apparently does not in any way reduce the strength of the fibre. That small portion of the flax where the green pulp has not been taken away by the scutcher is not amenable to being bleached quite white. This may be somewhat detrimental, but there appears to be a small proportion of that, and it may pay to put it through some caustic soak previous to

bleaching, which, I think, would enable these portions to be bleached as well as the rest. However, this is a matter that you can easily test by experiment.

I presume you will show to Messrs. W. and G. Turnbull the correspondence that is now taking place between us.

Yours, &c.,

A. C. ARTHUR.

Messrs. Lind and O'Connor, Flax-millers, Shannon, Wellington, New Zealand.

Oxychlorides Limited, Winchester House,

Old Broad Street, London, E.C., 7th July, 1905.

DEAR SIR,—

We are in receipt of your favour of the 17th May, and thank you for information *re* process of treating flax, which is interesting and of assistance to us.

We gather that you bleach and dry before scutching, so that a portion of the skin is left on the fibre after stripping, and as it will not bleach and prevents the fibre underneath from being bleached, it appears to us that scutching should precede bleaching. In that way you would have a perfectly even colour over the length of fibre, whereas you would have misbleach or uneven colour in portions covered by skin if bleached before scutching. There may be objections to scutching before bleaching, and, if so, and the misbleach does not matter much, your present methods may be followed. We should say, however, that the fibre bleaches much easier and much quicker after degumming, and that is a point which you want to bear in mind. Cotton and linen receive an alkali boil before bleaching so as to get a perfectly white colour; but we are afraid flax would not bear that expense. However, if you have a cheap method of degumming it might be worth while trying it if it does not weaken the fibre. The alkali boil has a tendency to weaken the fibre unless it is very carefully done. As we advised in our former letter, we gave your flax no alkali boil or any treatment beyond bleaching with oxychloride.

We are very pleased that you think so well of the colour of the sample we bleached for you, but we think that some we sent to Messrs. W. and G. Turnbull is even better, and there should be no difficulty whatever in maintaining that colour in practice even when dealing with large quantities.

We will answer your questions *seriatim*, but you will understand that it is difficult to give you absolute figures on the small amount of work we have done on flax, and they must be accepted as approximate only.

1. There is no difficulty in treating 1 ton or 20 tons a day by our process, and at a reasonable cost. It is simply a question of having a large-enough plant.

2. It is necessary to wash the fibre after bleaching so as to get rid of any trace of salt. All that is necessary is fifteen minutes' washing with water.

3. Provided the fibre was bleached in a tank with a proper perforated draining-tile bottom, it would not harm it to remain overnight after drawing off the bleaching-solution, but, on the other hand, would bring up the colour better. It would, of course, have to be washed in water, as stated above, before removing from the tank in the morning.

4. We cannot say definitely what would be the loss of salt per ton of fibre, but think it would not exceed 1 cwt. at the outside.

5. The cost of a plant to bleach a ton and a half in eight hours would be as follows, in London: One electrolyseur, £200; one dynamo, £220; one voltmeter and ammeter, £10; one circulating-pump, £7; copper leads to dynamo, £10: total, £447. With the same plant we are bleaching 5,000 lb. of cotton twice in ten hours, and we think a great deal more than above quantity of flax could be done.

6. We should be very pleased to receive and instruct any one accredited by Messrs. Turnbull; and your suggestion to send half a ton of flax by him is a very good one, because we could then determine the loss of salt per ton of flax and the output from above plant. We could instruct him how to put up and run our plant in a fortnight at the outside.

We notice you only get 27 cwt. of fibre from 10 tons of green flax, so that there is a very large amount of waste from the stripper, and which, we presume, you put to no account. It occurs to us that it may contain sufficient cellulose to make into a papermaking material, and we would suggest that you send half a ton dry weight of that material as it comes from stripper with your man, as well as half a ton of fibre, and we will treat it here and determine what value it has. We think it should form a valuable by-product of your works.

As our process does not damage the fibre in any way or weaken its tensile strength, whilst it improves its appearance to the extent of a few pounds a ton, it would pay all flax-millers handsomely to have the process installed at their mills; and we are quite certain that any man you send over will report very favourably of its simplicity, efficiency, and economy.

Yours, &c.,

(for Oxychlorides Limited)

H. A. McMAHON, Secretary.

Messrs. Lind and O'Connor, Flax-millers, Shannon, New Zealand.

DEAR SIR,—

62, London Wall, London, E.C., 7th July, 1905.

Yours of the 17th May to hand. I handed on the enclosures to the Oxychloride Company. They have to-day written you fully, and answered all the questions you asked, which, I think, you will find quite satisfactory.

You will note what they say about the refuse from the flax, and I certainly think it worth your while to have some of the refuse sent Home as they suggest with a view to papermaking. I have been fully convinced for a long time that there is possibly a great future for papermaking with the refuse from the flax, and the people who take the initiative in this will likely make a large fortune. The Oxychloride people have made some small experiments with New Zealand flax for

papermaking with very satisfactory results, but they are, of course, not able to test the matter in a big way. When you send your expert over here, I hope you will instruct him to pay a considerable amount of attention to this portion of the business.

Yours, &c.,

A. C. ARTHUR.

Messrs. Lind and O'Connor, Flax-millers, Shannon, Wellington, New Zealand.

Wellington, New Zealand, 27th April, 1905.

DEAR SIR,—

Oxychlorides Limited.

I regret that I have delayed writing to you on the above-named subject for so long.

The Oxychlorides Limited have definitely placed the rights for New Zealand under offer to my firm; but before dealing with the matter I want to be quite satisfied that the preparation is suitable for bleaching New Zealand flax, and with this in view I have written asking them to send a small shipment for experimental purposes here.

The preparation seems to be one capable of very wide use. For example, it has recently been tested for the treatment of sewage with surprising results; but these points are not of much interest to the New Zealand flax-miller.

When I hear further from the company I shall have pleasure in writing you again; but you will understand that my firm has the option of the New Zealand rights.

I am, &c.,

ALEX. H. TURNBULL.

Mr. Thomas Lind, Shannon.

DEAR SIR,—

Wellington, New Zealand, 15th August, 1905.

I have to thank you for your letter dated the 12th instant, and have read with great interest the letters you have received from the Oxychlorides Company, and I am returning them herewith.

The two packages of bleaching-liquor are on board the "Athenic," which has just arrived from England, so that I hope to be able to carry out the experiments shortly, and will be very pleased if you could bring some flax with you with which to make the experiments.

I am, &c.,

ALEX. H. TURNBULL.

Mr. Thomas Lind, Shannon.

DEAR MR. LIND,—

Wellington, New Zealand, 29th August, 1905.

I shall be glad for you to let me have a copy or a look at the last two letters sent you by the Oxychlorides Company, as they have not sent me copies.

I cabled to London to find out whether the oxychloride process was patented in New Zealand, and have to-day received a reply stating that it is patented in New Zealand, so that is satisfactory.

I am, &c.,

ALEX. H. TURNBULL.

Mr. Thomas Lind, Shannon.

FRIDAY, 29TH SEPTEMBER, 1905.

J. T. MITCHELL (Fildes, Mitchell, and Co., Merchants), Wellington, examined. (No. 8.)

Witness: My statement will refer to the matter from a merchant's point of view principally. Taking into consideration the importance of the industry, which is practically in its infancy, I admire the Government for having taken a right step in appointing a Committee to inquire as to the best means of improving the conditions thereof. This industry, speaking as a New-Zealander, I look upon as unique so far as New Zealand is concerned. It is at the present time bringing in a large percentage of foreign capital. The Government have expended large sums of money in connection with the dairying industry. I clearly recognise the advisability of the Government, so far as it is possible, upholding an industry which stands unique to this colony, as no other part of the world produces *Phormium tenax*. There are large blocks of land which are unsuitable for pastoral or agricultural purposes, but which could be made remunerative by growing flax and thereby finding employment for the unskilled class. Take Norway and Sweden, for instance. Women and girls could be employed in this work, which requires no mental or physical power, and which would increase the revenue of this country. I suggested when on a previous occasion I was a member of a deputation to the Minister the advisability of taking over by the Government blocks such as Makerua, part of Moutoa, Piako, and others, to find employment for those who need assistance. In connection with the dairying and frozen-meat industries as compared with other industries, I would point out that we are going to have strong competitors in the Argentine and also in Siberia. There are three factors in their favour—first of all, cheap lands; secondly, cheap labour; and, thirdly, that they are within a fortnight's sail of the principal European markets. New Zealand hemp will stand greater tension compared with Manila. For shop-twine purposes and also binder-twine it is of greater commercial value owing to its flexibility while protected from atmospherical influences, and as much as 90 per cent. of what is known as Manila rope is adulterated with a large percentage of flax (*Phormium tenax*). I think, taking into consideration what the Government have done in regard to closer settlement, that it is advisable for them to consider the desirability of taking up the flax industry in a similar manner. To-day the value of hemp for export stands at £26 per ton. When I started in business I purchased it at £10 per ton. That is only going back over a period of some nine years. It has cost me many pounds to bring it under the notice of the different European consumers. What is our position? We find syndicates taking up blocks of land and putting on prohibitive royalties in connection with the privilege, so that to-day a miller is not in the same position as he was previously when he was selling at £10 per ton. In the interests of the industry, which I look upon as of vital importance,

the Government should consider the advisability of breaking up these monopolies. As far as the grading is concerned, and in reference to the remarks I heard yesterday, it was distinctly and clearly agreed when the Hemp Committee of the Chamber of Commerce and the delegates of the Flax-millers' Association met that taking a "fair" grade the difference between sixty and seventy-four points was too wide a margin. At sixty points flax has just passed out of the grade which is known as "common." I think it would be advisable to make another grade—that is, "poor fair" and "fair." The difference in points between "good fair," "fine," and "superior" is ten points, but fifteen in the "fair" grade is out of all proportion. I look upon it that the actual difference in commercial value—taking from sixty points to seventy-four—is about £3 per ton, but when you get 74-point flax there is actually only a difference of about 10s. per ton in value between it and "good fair" graded at seventy-five points. Hence manufacturers of twine are sticking to the lower grades, and practically killing an industry which should turn out a superior article. They would not pay the difference of 10s. or £1 per ton where they only get a 63-point grade. I suppose I am one of the largest exporters throughout Australasia for the lower grades, and I clearly recognise that they are a nuisance. Before the Government Graders were appointed I did my own grading, and I suppose to-day I am dealing with one of the largest manufacturing firms in Australasia. As consumers they are asking me at present for the lower grades, whereas in years gone by they used to ask for the higher grades. Speaking personally as a practical man, I have gone through and inspected after the Government Graders have graded, and I fail to see that the standard has been raised. I would like to clearly emphasize my remarks in connection with the Government taking over those blocks before mentioned and cultivating flax in the interest of benevolent institutions and otherwise—that is, finding employment for the unskilled class. It does not require any mental or physical capacity.

1. *Hon. Mr. Duncan.*] You were here yesterday when Mr. Simpson was giving evidence?—Yes.

2. Did you hear him state distinctly that the grades we now raise were not what they used to be—that the Graders put lower points on fibre on examination?—Mr. Simpson was speaking as a miller. I speak as a merchant of some years' experience, and I fail to see that the points have been raised.

3. Then, in your capacity as a merchant, do you approve of low-grade flax being exported—that is, something similar to the samples you saw here yesterday?—No; I am very much against that, or against "condemned" flax being exported. I was one of a deputation before the Minister in connection with condemned hemp. A manufacturer who was present with the deputation made a statement that he did not consider it was fair to Australian manufacturers that hemp condemned should be manufactured in New Zealand and exported to Australia. I quite agree with that. If it is condemned as unfit for exportation, it should not be manufactured in New Zealand and sent abroad to compete against those who are buying a higher article.

4. In your opinion, would it have a bad effect on the trade generally if hemp that is condemned such as you have seen should be used and sold as New Zealand hemp?—Certainly. I look upon it that such hemp would only be suitable to be used as "lashing" for hemp in New Zealand, but not exported as binder-twine or for shop-twine purposes.

5. You heard Mr. Simpson give evidence on another matter yesterday—that was, with regard to the remarks made by the Graders on his hemp—that it was invariably "badly scutched" and "bad" everything—even if it was of the higher grade up to ninety?—Yes, I heard him.

6. I hold here the clips from four Graders and the remarks on Mr. Simpson's hemp, and you might just look over them a moment and see if they bear out the statement he made [handing witness the duplicates]. These are copies of what he gets?—I received this miller's flax for twelve months. He was under contract to me, and I received the whole of Mr. Simpson's output.

7. Was it satisfactory?—No; it varied the same as those vary.

8. Would you consider that they were a true representation of the grading?—Yes, those certificates. I should have followed in exactly the same way.

9. *Mr. Kirkbride.*] The witness says he is very much against "condemned" flax being exported. The former witnesses who have given evidence asked that rejected flax should be exported. They gave evidence that you stand to lose a good deal of money if not allowed to export it. I suppose as a merchant you do not stand to lose anything if rejected flax is not exported?—I do if I am financing a miller.

10. You are not a miller?—No, but I am a merchant, and often have to provide the ways and means.

11. Your business in regard to flax is buying and selling, consequently you do not stand to lose anything if those suggestions of yours are carried out—that rejected flax should be prevented from being exported?—I dropped £1,000 in four months owing to a miller not understanding his business.

12. What you want to show is this: that those men who gave evidence, and who wish to be allowed to export rejected flax, stood to lose money by it. You as a merchant did not?—Well, to a certain extent, yes. If I am financing a miller and the article he produced is condemned, then I must lose. The trouble is this: it is marked in New Zealand so-much. New Zealand manufacturers buying this rejected hemp at a cheap rate, manufacturing it into a merchantable commodity, and exporting are competing directly against those manufacturers abroad who are buying the higher grades.

13. *Mr. Buddo.*] The witness stated in his evidence that he thought there ought to be an extra grade put in between sixty and seventy-five points?—Exactly.

14. And he gave as his reasons that the difference in value between the two extreme grades was £3 per ton. Would an extra grade not tend to make the small degree of difference between the range of each grade so little that it would be difficult to get the buyer to recognise the difference and pay accordingly?—I would introduce a "poor" grade—that is to say, from sixty to sixty-five points, and bring "fair" in unison with "good fair," and then there would be simply a ten-point difference.

15. Making a total of how many grades?—"Common," "poor fair," "fair," "good fair," "fine," and "superior." There is only a difference of five points between the ranges of "fine" and "superior."

Mr. Buddo: At the present time the grading is on the basis of four.

Mr. J. D. Ritchie, Secretary to Department of Agriculture: Six.

16. *Mr. Buddo.*] I ask you if it is not probable that the purchaser would not recognise the difference between so nearly graded grades?—I am dealing with manufacturers, and they clearly recognise the difference of points.

17. You strongly emphasize the necessity of not exporting a poor grade of flax?—I look upon the flax industry as of vital importance to this colony, and I think that the grading is a factor affecting its permanence, and should be assisted in every possible way by the Government.

ROBERT STANSELL, Flax-miller, Waikanae, examined. (No. 9.)

Witness: I have been six years in business. I think that to improve the condition of the flax-millers there would have to be something done to regulate the quality of the green flax. I think that is the great trouble.

18. *Hon. Mr. Duncan.*] Will you state how you think that could be done?—The trouble all along has been that there are too many mills, consequently they have been milling inferior leaf, and you have been getting an inferior grade of hemp. It is a pretty big question to say how you are going to regulate it. For instance, in a district where there are two mills now there is just about enough flax to keep the two going. Another mill is started, and stuff is cut that is not fit to be used. It is cut before its time in order to keep the mill going. I do not think myself that there is very much difference in the grading since it first started. It may be a little higher, but there is very little difference. I think the quality of the leaf has deteriorated, and it therefore takes a bigger quantity of green flax to turn out a given quantity of hemp. I know mills that a few years ago could turn out 30 or 35 tons, and now they are lucky if they can turn out 20 or 25 tons.

19. *The Chairman.*] With the same machinery?—The machinery has altered very little.

20. Can you suggest anything that would improve the business, either by instruction or further inspection?—I suppose instruction would do a bit of good, because a good many men have started milling of late years who know nothing about it. Of course, it does not take a great time to learn, and it would not do them any harm to be told what to do.

21. It has been given in evidence that if the Government would appoint high experts it would be a great improvement?—Well, I suppose it would.

22. The same as the dairy industry—to assist dairy-farmers?—There are a great number of millers who do not understand their business, and it would enable them very soon to get into the run of things. I myself think that if they want to improve the quality of hemp, it would be necessary to legislate to prevent millers from putting through this inferior stuff.

23. Is it not incumbent on the miller to see that his employees do not put through inferior stuff and mix it with the good stuff?—It is not, because they are sending in flax 3 ft. and 4 ft. long; some of the millers are deeply in debt and they have to take it.

24. And get deeper into debt I suppose?—That is what they do.

25. If you have anything further to add that will be of interest to your business, now is the time?—If there is anything the Committee would like to know I shall be happy to answer their questions. I am not much of a hand at talking.

26. *Hon. Mr. Duncan.*] What is your opinion about the exportation of condemned flax?—I think myself that, if they are going to allow the manufactured article to be exported made from condemned flax, the raw material should be allowed to be exported.

27. *The Chairman.*] Do you mean the leaf unscutched?—No; "rejected" which is allowed to be manufactured in the colony, and should be allowed to be exported.

28. *Hon. Mr. Duncan.*] Would it be of any value if there were some standards set for a man who was competent to take charge of a flax-mill? Should he go through some examination before being put in charge of a mill?—I think it would be a very good idea, sir.

29. *The Chairman.*] That they should require to be certificated?—Yes, sir.

30. *Hon. Mr. Duncan.*] We had it in evidence from Southland that out of seventy-five mills a witness knew, you could count on your fingers the competent men?—I quite believe that.

31. For ten years or more this man was not only a miller but a merchant too. As far as I could gather from his evidence he said that the rise in flax encouraged many to start in flax-milling who had no knowledge of the work, and that this had a lot to do with the production of an inferior article?—I quite believe that, sir. Many of those men come along, persuade a man to start a mill, and when they get in that thing is run anyhow, and they turn out all sorts of rubbish.

32. *Mr. Kirkbride.*] I am not altogether satisfied with the reply you gave with regard to the Minister's question that they should be required to pass an examination. Would you be in favour that all managers should hold certificates?—Not managers—stripper-keepers; they are the principal people in a mill.

33. Was that your question, Mr. Duncan, in regard to stripper-keepers?

Hon. Mr. Duncan: Yes.

34. *Mr. Kirkbride* (to witness).] You think it would be well if the stripper-keepers passed an examination?—I think it would be an improvement.

35. Did I understand you to say that you would be in favour of the millers being allowed to export everything, even that below "common," classed as "rejected"?—I am in favour of them being allowed to export it, if the manufactured article is exported.

36. Of course, that is saying that you would be in favour of the exportation of all kinds of the manufactured article?—At the present time stuff condemned can be sold to a manufacturer in

New Zealand, and he can make it into rope and export the rope made from it; if the man is allowed to export the rope I think the miller should be allowed to export the other.

37. *The Chairman.*] Do you know of your own knowledge that there is an export trade of cordage in New Zealand?—Some time ago Mr. Kinnear, of Kinnear and Sons, Melbourne, was over here; we had a deputation to Mr. Duncan, and that was one of the questions he raised.

38. We export rope, then?—I believe Ross and Co., of Napier, have a contract in New South Wales.

39. *Hon. Mr. Duncan.*] I believe Mr. Kinnear said it was not fair to them to allow inferior stuff to be manufactured here and sent over to compete with them, who had to buy at the higher price?—Yes; I believe Mr. Kinnear said they were paying about the same price for the raw article there as for the manufactured here.

40. Would you be in favour of having the Graders' points put inside the bales, so that the purchaser at the far end would see exactly what he had purchased?—Yes, certainly I would, so that the points would show at the other end.

41. *The Chairman.*] Mr. Simpson complained that the Graders' certificates he got condemned everything—"badly washed," "badly scutched," &c.; but I find from the certificates almost invariably that there is inferior stuff in the centre of a bale. Who is responsible for that?—The scutcher.

42. Well, that is the miller?—Yes.

43. That indicates a little bit of roguery, I think. The Grader could not tell there was some inferior stuff in the centre of a hank?—Not unless he opened it out.

44. We find there was a tremendous quantity of short stuff in the centre of the pack, and big stuff at the top and bottom?—A great deal of that is caused through the flax not being sorted. I think the Grader will bear me out in saying that of late years there have been shorter hanks. The reason is, inferior stuff.

45. They are putting up a great deal of damp flax. I see the "Turakina" was on fire the other night?—I do not think that would do it. I think there is too much difference in the number of points. There is supposed to be fifteen points for the class "fair," but I really think there are twenty-five points. For instance, you get a line of "fair" that is very ordinary, and another "good fair" at seventy points. I think there should be another grade put in.

46. You would be in favour of putting the number of points on the certificate?—Yes.

47. And then the merchant could have whatever grade suited him best?—That would meet the case. Those grades are recognised in the trade now, and I think it would be just as well if the Graders put on their report what they were.

48. There is, I think, a consensus of opinion that the range of points should be reduced from fifteen to ten?—I do not see that that would make any difference whatever. I consider two grades of hemp—"good fair" and "fair"—a fair grade now. I went down to the shed one day. There were two grades of stuff there, both "fair." One was a line of my own, and another a line of my brother's, and I consider there was fully £2 a ton of difference in the hemp.

49. Did they both sell for the same money?—I could not say, sir.

50. *Mr. Kirkbride.*] Do I understand you to say you care nothing about points, but that it is the classes?—No; what I say is that the difference between 60-point flax and 74-point flax is about twenty-five points really, whereas it only shows fourteen.

51. How do you make that out?—I reckon that in the actual stuff I have seen in the shed there is that difference between the two lines.

52. I do not understand. Do you say that there is a range of twenty-five points in this grade of "fair"?—I consider the difference is about twenty-five points, whereas it only shows fifteen points.

53. *Mr. Kidd.*] You mean the difference in value?—Yes.

JOHN JOHNSTON REICH (Joseph Nathan and Co. (Limited), Exporters, Wellington), examined.
(No. 10.)

Witness: My main point in coming here is simply to advocate the carrying-out of the recommendations made by the recent conference of hemp-millers with the Department—more particularly in respect to the recommendation in regard to establishing standard bales for the guidance of millers as well as Graders.

54. *The Chairman.*] Do you mean standard in size?—No; in quality. I consider that a committee of hemp-millers in conjunction with the departmental officers should be able to select standard bales, which could be kept in the grading-sheds in accordance with the recommendations of the conference. I know that many years ago, before grading was established, it was quite the common practice for merchants in making contracts with millers to arrange with the millers that from the first delivery against the contracts one or more bales should be agreed upon by the merchants and the millers as being up to the standard contracted for, and these bales were put aside in the Harbour Board sheds for reference in connection with any disputes that might arise regarding subsequent deliveries. The millers are now advocating practically the same principle. Everybody knows there has been a great deal of friction and dissatisfaction on account of grading. Millers dispute Graders' decisions, and there seems to be no end to the friction; and we know by experience that the buyers in London have frequently complaints to make in regard to the grading, and the complaints are not always on the one side. Sometimes hemp that has been graded "fair" will easily pass as "good fair" in London. I contend that if standard bales were agreed upon by a committee appointed by the Department and the hemp-millers as a body, a great deal of this trouble would be avoided, and a very much greater uniformity would be obtained in the shipments leaving the colony. I would even go farther than the step proposed by the conference, and suggest that through the High Commissioner's office in London arrangements might be made with the

hemp-buyers in London that bales of hemp representing what they call "good fair" and "fair," according to the London point of view, should be sent out here to the Department and submitted to the millers alongside the bales selected by the committee I have mentioned, so that they could be compared with the bales which millers and Graders considered "good fair" and "fair" from a New Zealand point of view. If the matter was gone into on these lines I believe a happy medium could be fixed by all the parties concerned, and that it would be of great benefit to the industry. The millers would know what they had to work up to, and even in the case of new millers starting, the miller, stripper-keeper, and his men would find it of educational value to them. It would also be of value to them (the millers) to make them come to Wellington, Auckland, and other centres, let them see the standard bales, and make them understand that they must turn out flax according to those standards. That means that not only the millers, but the men would take a pride in turning out an article of uniform quality. At present there is no fixed standard in the minds of millers or Graders, and until there is I fail to see that any further progress can be made. I understand that the Department is in favour of setting out the grading-points on the certificates which are sent from us to the buyers, the object being to get the trade into the habit of selling on points. I think it would be a very great mistake to introduce this system. It was tried in connection with the butter business when grading was first started with butter, and it was found to be a dismal failure. It is seldom nowadays that you hear of any contracts for butter being made with a stipulation that first grade shall not be under a certain minimum of points, with an allowance for the first grade under that minimum. My firm are very large dealers in butter, and we know for a fact that butter that is graded high in the colonies does not turn out so well in London as butter that is graded low here, and *vice versa*. In regard to milling and selling on points, it does not follow that a line of "good fair" graded 82 is going to fetch any more in London than a line of "good fair" graded 75. It seems to me that very possibly a manufacturer finds hemp graded at 75 points worth as much for his purpose as hemp graded at 82. To do as has been suggested would lead to a great deal of confusion in the business of merchants, and we should have to go to a great deal of expense and trouble in revising our cable codes and standards in the trade. "Good fair," "fair," &c., would have to disappear, a lot of trouble would arise, and no good purpose would be served. I believe myself that the suggestion of the miller, that the points should be altered by making "fair" 60 to 70, and having ten points between each grade, would tend to fix the standards more clearly, especially if the suggestion in regard to the quality of standard bales is carried out. I understand that the idea of the millers is not necessarily to alter the quality under these points, but merely to fix the difference of ten points between each grade. The other minor suggestions made by the Conference, in regard to the marking of bales, and so on, we are quite in favour of; also the suggestion in regard to putting a label in the centre of a bale is a good one, although when all is said and done there is not much in it. We read in the papers every now and then some wonderful "cock and bull" stories about dealers at Home being imposed upon. I read of such an incident in regard to a Dundee buyer. It would appear as if the Chambers of Commerce abroad were never advised of the grading system. I had my first business experience in Dundee, and I think Mr. Ritchie will bear me out that Dundee merchants are not the sort to buy "a pig in a poke." A great many of these stories in the papers about deception practised on buyers at Home are grossly exaggerated. Of course, there is this question of prohibiting the export of condemned hemp. It is a very difficult one to decide. We know that even in the very dull state of the market we have had "common" hemp sold in London at £25 10s. per ton—when the market a few months ago was at its very lowest ebb. It seems to us quite clear that there is a market for it at Home. We cannot always say that the hemp that is sent down in this condition to the grading-sheds is sent on purpose. It very often occurs not through the fault of the miller, but through broken weather, machinery getting out of order, or some such cause. It seems very hard that the miller should be prevented from exporting it. In saying this I am simply giving my own view; I am not speaking on behalf of my firm. We know this class of hemp is very readily bought up by some local concerns, and if the miller is prevented from exporting it he is completely at their mercy. I think that before any regulation of that kind is passed it ought to receive very grave consideration. It should be only if the tendency became general to manufacture a very common low class of hemp, but I do not think there is any such tendency.

55. *Hon. Mr. Duncan.*] You were here yesterday?—No, sir.

56. If you had been you would have heard Mr. Simpson's evidence, that it paid him better to make a low grade of hemp, and that he was not going to make a higher grade?—That is only one opinion.

57. In your opinion, is there a tendency just to get over the fence?—I think that the reason probably in regard to the lower quality that has been ruling lately may be on account of the Graders being more strict in their rulings; but, personally, I do not see any general tendency to reduce the quality, and I contend that if those standard bales were fixed upon it would tend to improve the quality.

58. Do you not think that it would tend to a great many more disputes?—No, because the miller and his men, having seen the standard bales, would have in their minds' eye what was required, and know if any slovenly work is done that there would be no hesitation on the part of the Grader in condemning the hemp. Very often when a Grader is examining hemp he is, as we should say in Scotland, "swithering" as to whether he will give it a point or two one way or the other; whereas if he had a standard bale he could make up his mind, and have no hesitation in standing by his decision if the miller cared to put his deposit down and call for an arbitration.

59. How do you propose the standard bales should be got—by the Department or by the millers and merchants?—The Department should purchase the standard bales, and they should get different bales from different parts of the country, and have a meeting arranged between

merchants, millers, and Graders, at which the selection of those grades should be finally agreed upon by all parties; any surplus bales left over could easily be sold at the standard price. It is quite a common practice in regard to other industries. Before I came out to New Zealand I was engaged in the Dundee trade. After that I had a little experience in the grain trade in Liverpool, and one of the chief matters that interested me there was the system of regulating the sale of Californian wheat. The standard grades are fixed for every season by the San Francisco Produce Exchange, and cargoes are sold as No. 1 Standard, crop 1902, No. 2 Standard, and so on. When it comes to hand, if the importer is dissatisfied with the quality, he can call for an arbitration and settle the point as to whether an allowance is to be made by reference to samples of the season's standards which are kept by the Liverpool Corn Exchange. It is a common practice in business now to fix standards of quality in regard to produce.

60. Your people have been doing a good deal of business in butter. There would be no standards like these required in butter?—Butter would not keep indefinitely.

61. Will flax keep indefinitely?—No; but it is easy to renew every three or six months, and the old bales would be a very good guide for selecting the new bales from. There should be no trouble by a committee of merchants, millers, and Graders working in unison. It would be a very small matter. It would do all those interested in the business a great deal of good to meet every three months and talk over matters of mutual interest. I understand that resident Graders are not settled at each of the depots. Now, the standard bales could be selected in Wellington for all the depots in the Wellington District, in Auckland for all the depots in the Auckland District, and so on. The difficulty would be very small in selecting sufficient bales for all the ports. It would not mean much money altogether.

62. Only the time and difficulty of getting merchants and millers together?—There would be no trouble about that. The merchants and the millers would be prepared to meet if the Department were prepared to do their share of the work. It would save a lot of disputes, trouble, and correspondence that take place now.

63. Are there many disputes and much trouble now?—Mr. Fulton can tell more about that.

64. He cannot tell as much as you who are in the trade?—Complaints are constantly coming down. We know the millers are somewhat like the farmers—they are always growling. The men we deal with have been complaining of the irregularity in the grading.

65. In regard to there being twenty-five points betwixt two grades, you see the very lowest is accounted "fair," or "common," or whatever the case may be. Well, then, the man who does not get over that has the whole grade between the highest in the one and the lowest in the other?—Alter the points to ten points between each grade. It is not necessary to alter the quality. What is 65-point hemp would be called 60-point in future, but still the Grader would grade to the old standard.

66. If it was only graded 79 points and did not make 80 points, then there would be a range of nineteen points?—Only nine points.

67. But there would be a difference of nineteen points between the lowest in the one and the highest in the other?—Yes, from the lowest to the highest.

68. Any one knows that from "fair" to "good fair" and "fine" there is a range of nineteen points?—But at present it is a range of twenty-five points.

69. That should be the business of the millers and merchants to fix. We want to help the business, and to keep you straight, working harmoniously together?—Quite so.

70. *Mr. Kirkbride.*] Do you think that the buyers at Home buy on the grade-marks or on their own judgment?—Nearly all the buying now is done on the grade-marks, and the butter-buying is done on grades also.

71. You stated that there were complaints from London: what do you mean by that? Was it bad grading, or what?—The irregularity of it—that is to say, that hemp which is graded as "fair" would frequently pass as "good fair" from a London point of view.

72. Did I understand you to say that there was a conference of millers here, and that they proposed that some standard should be fixed?—Yes; they came from as far as Southland.

73. Was it their idea, and is it your idea, that, say, a bale of a certain quality should be kept on hand for the purpose of keeping the grader and the miller straight?—My point is this: A miller may have in his own mind that the quality of his hemp was "good fair," and should be classed as such, and he gets a grade-note certifying that it is only "fair." It would be open to the miller to come to Wellington to have the question submitted for decision by reference to the standard bales kept for reference in the grading-shed. The miller should be called upon to pay a deposit before he could call on the Department to have the dispute arbitrated on. The miller would have to make the deposit a fair amount, so that he would have to be pretty strongly of opinion that a mistake had been made before he went on with it. These points in regard to the method of dealing with disputes could be very easily regulated.

74. I understood you to say that there was no fixed standard in the minds of Graders and millers?—That seems to be the impression.

75. You want them to meet and agree on certain bales of certain quality and certain grades, both for the information of Graders and millers?—Exactly so.

76. You are of opinion that Graders grade irregularly?—They simply have to have a standard in their mind's eye at present. When they are hesitating about points in a grade-note they have no standard to go by. The bales might not be scutched to the satisfaction of the Grader. He cannot make up his mind regarding it; but if he has a standard bale to look to he says, "I knock off so-many points for scutching," or in regard to stripping, washing, or whatever it may be.

77. I recognise that it is a very good suggestion, and a good many witnesses have said the same. In regard to the export of "rejected" hemp, you are of opinion that all hemp should be allowed to be exported—even "rejected"?—No. I think there should be some method of giving

a miller an opportunity of putting before the Department the trouble which has arisen, and which led to the sending-in of this unsatisfactory hemp.

78. That is not an answer to my question. In your evidence you brought forward as an illustration some of this hemp which had been sold at a good price in London. You expressed yourself in favour of exporting "condemned" hemp?—Speaking individually, I may, but not for the firm. Mr. David Nathan, who is in London, has heard so many complaints about hemp that he is against the export of such hemp. I think that to stop such export is a very drastic step to take, and that it should be carefully considered before being adopted by the Department.

79. *Mr. McLachlan.*] With regard to standard bales, do you think that after dumping here, shipping, and transhipping, that the effect would not be deteriorating to such standard bales in quality or appearance?—They would not be dumped until they came to the sheds here.

80. Would they not be dumped when they come from London?—That is only an extension of the proposal that I personally advocate—that the Home merchants and buyers should also be interested in the standard bales. The conference held recently simply proposed to have standard bales selected here. It was a suggestion of my own that there should be standard bales sent from London for comparison before the standards were settled here. I do not think that travelling from London would affect them to any serious extent.

81. You do not think that the hemp would deteriorate in quality and appearance by shipping and transhipping?—No, not materially.

82. *Mr. Kidd.*] What is the difference in value between those different grades?—The difference in value between "good fair" and "fair" is £2 10s. per ton here and in London.

83. Between all those different grades?—Oh, no.

84. Take from "common" to "fine"?—There is no fixed standard at all. It all depends upon what is the inquiry at the moment. There is a fixed difference here between "good fair" and "fair," and that is £2 10s. per ton.

85. I see that between "fair" and "good fair" there is a range of fourteen points. If a man only endeavours to get one point above the lowest standard he gets as much as a man who is one point below the good standard?—The merchant very soon finds out a miller who is working that way. That is where the trouble comes in. Some of the merchants making contracts for "fair" will stipulate that the delivery shall not be below sixty-five points. They have been forced into that by complaints from buyers at the other end.

86. Is there no way of regulating it even less?—That is the suggestion of the millers.

87. If there is £2 10s. difference between two grades, is there no way of regulating that into five ten-shillings's?—No.

88. It does not seem to me to give any encouragement to attain high points when a miller can get just as much for flax graded at 61?—The difficulty is that it is a very onerous duty for the Grader.

89. Do you not think that the man who is grading every day would have a better idea than a sample bale could convey, supposing scutching was bad, washing fine, and so on?—Not necessarily.

90. Yet, he would not be carrying it to the standard of his standard bale if he did not?—There would be a certain number of points allotted for each section of the work, and the aggregate would settle the grade. He might have allotted a certain number of points for scutching, and the miller might know it was very well done, yet the Grader when he comes to the shed may decide below the miller's estimate. If the miller thinks he has not received what he is entitled to he can compare his flax with the sample bale.

91. If there were more standards made, would there not be a better margin for the manufacturer?—Yes.

92. As it is, a man works up to one class, but he may not reach it in the Grader's opinion, and the result is he falls down £2 10s. in one class?—Yes.

93. A man has not at all times got an experienced man, and it is this man he has got to look to for the result?—There are five points the Grader has to look to—scutching, washing, dressing, stripping, and bleaching.

94. Taking the sample bale, do all sections of the country produce the same class?—Oh, no.

95. Then, how are you going to regulate the standard bale?—The standard bales for Auckland would be drawn from the Auckland District, and for Wellington from the Wellington District.

96. Would Manawatu be the same as Wellington?—Practically, Wellington hemp is all of the one quality.

97. Would it not be more businesslike to take a bale from one mill by the hanks he gives you as a sample than from some other which is perhaps some hundreds of miles from where the miller is producing it?—The standards of scutching, washing, stripping, &c., cannot vary materially.

98. There is no regulation, I suppose, amongst millers and buyers as to the length now that flax is getting cut? The second crop must be cut much shorter than the original crop?—That is where they are cutting it too early before the flax is properly grown.

99. Do I understand you to say that you are not in favour of the lower-grade flax not being exported?—Individually I think it would be a mistake to prohibit it.

100. Do you not think that that would in the end tend to ruin the flax-miller?—He does not turn that quality out deliberately.

101. Would not the market regulate that? If there were no buyers it would not be sent out of the country. Why should we not allow condemned flax to be exported?—I am not opposed individually to allowing it to be exported.

102. You say that buyers buy on grade-marks now, and not on their own judgment?—They buy on the Government grade. It would be very difficult for the Graders to grade to five points.

It is hard enough for them now to grade to the ten points, according to the point of view of the miller.

103. *Hon. Mr. Duncan.*] Do you find that you would get on an average bales from three mills, say, from different parts of the Wellington District, that would correspond to any sample you might choose?—I do not say that the length of the fibre, or the strength of it, or anything of that kind would correspond, but, as far as dressing is concerned, stripping, scutching, washing, and bleaching, why should there be any difficulty in getting millers to deliver up to the standard bales on those points? I understand some of them now, by regulating their machinery, can raise or lower their points. They grade to what they have to deliver. If they had a standard bale to go by, and the men were responsible for turning out the fibre, they would have no difficulty in working up to that standard, and you would get greater uniformity in the quality of the flax than now.

104. You are well aware of the number of conditions that go to make these points: first and foremost, some of the green flax is of a different quality from others?—Yes.

105. Then, there is bleaching, drying, and so forth. I suppose three or four or five things have to be reckoned with. There are always variations of these, so that it is a difficult thing to do?—You cannot get up to the exact points, but with a ten-point margin it would be very difficult for the Grader to go very far wrong in the points he gives to the scutching or the stripping if he has got that standard bale by him to refresh his memory. Supposing a miller has been away, and his men have got careless during his absence—that the stripping, scutching, and so on are behind—he thinks his men have been acting fairly, and that when he gets a lower number of points it is an error on the part of the Graders. He would soon settle the matter by visiting the grading-sheds and comparing his flax with the standard bales. It would be an infinite advantage to all parties to have standard bales, and would tend to uniformity in quality.

106. Have you heard of any complaints yourself about length of fibre?—We have not been troubled with any.

107. I am holding a letter here complaining?—The standard bales would prevent a miller from putting in stuff that would be likely to have points knocked off for short length.

Hon. Mr. Duncan: Here is a letter from a manufacturer at Home, in which he says, "We think an order should be issued to your Graders to pay special attention to the length of the fibre. Short fibre leads to very bad work from a manufacturer's point of view."

109. *The Chairman.*] It has been stated here that it would be desirable to have a manufacturer as Grader. Do you think that would be desirable?—I would not like to express any opinion upon that. It is rather a technical question.

ALFRED SEIFERT, Flax-miller, Palmerston North, further examined.

Witness: When the Flax-millers' Association in the Wellington District advocated a range of ten points in each quality it was with the idea of making the grading uniform, and to do away with fifteen points for "fair," and only five for "superior," as at present. The fifteen points for "fair" has caused a great deal of trouble. To get a uniform range of ten points the grades will have to be—"Common," 50 to 59; "Fair," 60 to 69; "Good Fair," 70 to 79; "Fine," 80 to 89; "Superior," 90 to 99. Though we advocate this alteration in the points, we do not want the quality of "good fair" to be altered. "Fair" will remain the same, except for five points off the lower end. "Fair" under the alteration would be equal to the present grade of "Fair," between 65 and 74 points. Of course, "common" would rise five points in the grade. That would be equal to the present 55 to 64 points. What is below "common" we wish to be allowed to export. That could be called "very inferior," or some other name that would be suitable.

110. *Hon. Mr. Duncan.*] Do you think the millers can tell generally when they put their bales on the wagon for Wellington what they should class?—To within two or three points, I cannot. I do hold that there has been a slight rise in the standard going back over the last three years. I claim to have some experience, passing as we do 2,000 tons through our hands. We have mills from the Waikato down to the Bluff. I think there has been a rise from two to three points. I think it would be good to have those sample bales. The hemp will keep when properly pressed. I have hanks five or six years old. The Graders say that there has been no alteration in the standard. Sample bales would prove it.

111. Those hanks of yours are not continually touched?—I do not think that it would be necessary to handle the sample bales. I do not need to handle them. In most cases if I see a hank hanging up on the wall I can tell to a couple of points the quality it is.

GEORGE BICHAN, Flax-miller, Matakura, examined. (No. 12.)

Witness: What I would express an opinion mostly on is grading. I think the points in "common" should be raised from sixty to sixty-seven, and "fair" sixty-eight to seventy-four, and "good fair" as at present—seventy-five to eighty-five. I do not think it should be altered from sixty to seventy and seventy to eighty as suggested. The "fair" would be too high, and I think anything graded below sixty should be stopped from being exported altogether.

112. *The Chairman.*] Anything below "common"—what would be called "condemned"?—Yes. I do not think it is a hardship on millers to have to turn out over sixty points. Down to sixty points "good fair" is generally hard to get, but I do not think it is any trouble for any man to turn out over that; and I think the Government should have a man going around instructing flax-millers as to what are really the requirements. Many times they start without knowing the requirements. They get what they call an expert, and he probably knows no better than they do; they are only wasting their money on flax, and have no benefit from it. In reference to sample bales, I think it would be a good idea; it would cut down any disputes between flax-millers and Graders.

113. *Hon. Mr. Duncan.*] Have you more than one mill?—Just one.

114. Do you work it yourself?—Yes.

115. You consider yourself an expert in handling it?—I generally turn out “good fair”; about 75 per cent. of what I have turned out has been “good fair.”

116. You said any average flax-miller ought to be able to turn out “fair”?—Yes.

117. *The Chairman.*] You think it would be essentially desirable for the Government to appoint an expert to instruct amateurs, particularly when they are going to start a mill?—Certainly.

118. We have evidence here that there are a number of men well qualified, who have themselves been flax-millers and who have retired; you think it is desirable to have such an expert as one of those would make?—I think so.

THURSDAY, 5TH OCTOBER, 1905.

LOUIS PASCAL (Pascal Bros.), Flax-miller, Palmerston North, examined. (No. 13.)

Witness: I am a very strong advocate of altering the grades of the flax. The grading, I consider, principally between “good fair” and “fair,” has too large a margin of points. Of course, I do not suppose it is necessary to explain why; it has been explained before. Naturally flax graded sixty to sixty-five points cannot be of the same quality as flax graded seventy to seventy-four points; yet they all come under the same class, otherwise the grading is right enough. My views regarding the improvement of the industry I have written in a letter to Mr. Ritchie, Secretary to the Department of Agriculture.

The letter was put in as follows:—

DEAR SIR,—

Palmerston North, N.Z., 24th August, 1905.

There have been many propositions brought forward in the last year or two as to the best means to improve the quality of New Zealand dressed flax. In my opinion there is one way which seems simple enough, but which somehow or other has not been altered—that is, the diminution of the number of points allotted to each grade; but my object in writing this letter is not to discuss the grading, but to submit to you an idea which seems very practical, and which I feel certain would be a great benefit to the precious flax industry of New Zealand. The Government has established dairy schools, experimental farms, &c.: why not have schools for the teaching of flax-dressing, otherwise a school of stripper-keeping? Like other ameliorations brought forward for the improvement of the flax industry in New Zealand it would pay easily for its own cost, and a good interest besides. This is the project I take the liberty of submitting. The Government should buy a first-class flax property of 500 or 600 acres of good solid green flax, and 50 or 60 acres of good high ground for the bleaching process, with an up-to-date milling plant. This mill and property managed by a very competent man, well up to the science of stripper-keeping, which is the most important operation in flax-dressing, and in the science also of the green plant, of the best way of draining the land, cutting the leaf, &c., which also is a great point in the flax industry, would be worked by the Government with the object of teaching young would-be stripper-keepers the art of flax-dressing in all its different processes, so as to turn them out after a year or two of good practical teaching fit to manage ordinary flax-mills, and dress a good sample of flax. That would be the first advantage gained, but there would be many more derived from this Government school. The mill so managed would naturally turn out a splendid article of fibre; this would serve as a guidance to the Grader for the classing of his different grades, and would serve also as a perfect guide to the miller as to the results obtained by good milling. Thirdly, the field of 500 or 600 acres of good flax would be a splendid means of studying the plant as to the best ways of working, planting, cutting, nursing, fighting the different diseases of the plant, &c. Lectures would be given to the young fellows at the mill, and these lectures, followed by the real practice of the different operations, would be bound to make real experts of a proportion of them, to whom Government certificates would be given. You can easily imagine the many advantages this precious certificate would be both to the employer and to the employed. As I said before, the mill would not only pay the Government for its cost, but it would pay it a good interest, added to the immense good it would do the industry of flax-dressing and to the colony in general.

It might be worth your while, sir, as the head of the Department of Agriculture, to submit this idea of mine to the Minister, and in the hope that you will excuse the liberty I take of thus submitting my views, which may not be original after all, I remain, &c.,

John D. Ritchie, Esq., Department of Agriculture, Wellington.

LOUIS PASCAL.

Witness (continuing): In regard to sending an expert around the mills to teach, I do not see how a man can be taught to dress flax in a week's visit, when a machine is such a delicate thing to handle, because it will go wrong in an hour, and it will take days to put right again. If the expert happens to be there when the machine stripper is working well, he has nothing to teach; then, if it goes wrong after he has left, the man in charge cannot recall the expert. I think it would be far better to teach young fellows so that they can be relied upon. I do not see any other course that would be of advantage.

Mr. McLachlan: I think the question of the range in grading has been brought before the Committee by other witnesses who have given evidence.

Witness: When I was at Home two years ago I went to the largest French firm of twine-makers; they use about 3,000 tons of New Zealand hemp a year, and I saw the stuff arriving. It was a Foxton brand; one lot was graded “good fair,” and the other “fair.” They said to me, pointing to “good fair,” “That is the stuff we want. We ordered only ‘good fair,’ but could not get the quantity we required. The other quality does not suit us because it is too uncertain.” The reason they could not depend on the “fair” was because some parcels were very good—graded

up to sixty-eight, sixty-nine, or seventy-four points—and anything below that they did not want, because they said, “We have to put it through a hackle to use it, yet we are giving the same price for that quality.” For every ton we sell below seventy-five points we lose £2 10s. The man who dresses 65-point flax gets more weight in his fibre than we do who dress to seventy-five points, and get the same price; consequently he is not going to dress fibre at the higher grade. If the present system is persisted in nearly every miller will go in for the lower grades, because the higher do not pay him so well.

1. *The Chairman.*] You speak of a school for stripping and generally preparing the flax, and also for culture?—Yes.

2. Could you get a suitable block of flax land accessible at an easy distance?—There is any amount of land to be got in the district. There is the Motau Swamp, for instance—any amount of good land.

3. Within easy distance?—Oh, yes; there are some properties where the flax is very good.

4. I thought it was nearly all cut out?—If it was left alone for a year or two it would soon recover, but, unfortunately, the miller does not often do that. There is no doubt the flax wants looking after; the more it is cut the weaker it is.

5. *Mr. Buddo.*] The witness stated that the principal education employees required was apparently that of looking after the machinery. Then, I take it that it is a machinist you want?—Well, I do not know. It is a curious thing that ten or twelve years ago I brought in a Scotch engineer to look after the stripper alone, but he was not able to do it. I could not get the work out of the man, yet he was a first-class engineer.

6. Would it not be an advantage to have an expert grader, and educate the employees to distinguish between the different grades of flax, so as more readily to work in low fibre?—I do not see how an expert could possibly do it.

7. But would that not be an advantage?—No, I do not think so, because most of the flax-millers know their business right enough; but the men want to be taught more.

8. *Hon. Mr. Duncan.*] With regard to the shipping of flax, do you think it would be an improvement to have the Grader's points put into the bales, so that the man who receives it at the other side would see exactly what is the grade?—I think it would be a good thing for all us flax-millers—for the good flax-miller, at any rate—because each would like to see the number of points he is getting.

9. And the certificate as well?—Yes, and the certificate as well.

10. About what quantity of flax do you export?—Each mill turns out on an average 270 tons a year.

11. How many mills have you got?—Two.

12. That would mean that your output is about 540 tons annually?—Yes—that is, working for about ten months in the year, and slackening two months in the winter-time.

WILLIAM GEORGE SMITH, Flax-miller, Palmerston North, examined. (No. 14.)

Witness: I have been very nearly seven years milling. There was no grading when I started, but I got along very well. In the meantime the Graders have been appointed, and I think myself that the hemp industry has improved a good deal; but in regard to the points, I think that the majority of the millers consider that the margin from “fair” to “G.F.A.Q.” is too wide—that is, you have got from sixty to seventy-four points in the one grade. Well, you send down a line of stuff and get seventy-five points for it. You send down another line the following week, and get seventy-two or seventy-three points for it. I do not see where the difference can come in, that the merchants should deduct £2 10s. or £3 per ton from the price of the second lot as compared to the first. I think that from 5s. to 10s. a ton would be the utmost difference in value between the two lots. There is a lot of stuff coming into Wellington at the present time, but the millers would sooner sell “fair,” because they can make more money out of it than out of the higher quality. I think that ought to be stopped. The millers will persist in running through from 12 to 14 tons per day. Naturally the machines are not looked after properly, and the result is that the stuff is thrown out here. I think the Graders do very fair work. I get along very well with them. Since they have been appointed I think that, with the exception of what stuff has been run over by the floods, I have not lost over 5 tons. I think if one man can get “G.F.A.Q.” another can. Of course, the leaf is not as good as it was three or four years ago. We have got a grub now attacking the leaf. There will be a time when the Government will have to step in and try and combat this grub as in the case of potatoes, as it is spoiling a terrible lot of leaf. With regard to the proposed school of instruction that has been spoken about, I think it would be a very good idea if the Government was to buy a small area of flax land, put a plant on it, and have a thoroughly competent man who understands the stripping and so forth of New Zealand hemp. Get four or five students and educate them up to the proper keeping of a stripper, so that if any miller wanted a man he could be hired out by the Government at so-much per day. If you have not got a man who thoroughly understands a stripper, then you might as well leave it alone. This applies not alone to the dressing of the stuff, but half the men going run you into a fortune buying rollers. Take 200 or 300 acres of fair swamp, have two or three or half a dozen men; they could do other work as well and learn the art of stripper-keeping. It cannot be learned in a week or a day. It would take three or four months, and to be constantly at it.

13. *Mr. McLachlan.*] I gather from Mr. Smith's remarks that he considers great value would accrue to the industry from such an experimental school; you could get men who understood the business?—Yes; I think it would be a very good idea. A man milling could come there and see if you had got the men.

14. You are satisfied that the Graders have assisted in improving the quality of the grade?—There is no doubt about that.

15. Your only complaint is that there is too wide a range in the grade from sixty to seventy-four points?—Yes; that is all I have to complain about.

16. *Hon. Mr. Duncan.*] Do you not think that that arrangement in regard to the range of points should be remedied between the millers and the merchants—that it should be quite sufficient for the Government Grader to give you the points; that you should classify and come to an arrangement that you consider would be a fair difference?—They will not do that.

17. Then, the best thing you can do is sell your own stuff; you will soon see that they will come to you?—That is what we want to do.

18. It is not for us to make rules and regulations. If our Graders give you the points you have the right to arrange your price with them?—With the Grader or the merchant?

19. With the merchant. We have nothing to do with the merchant. The Grader gives you points, and gives you a certificate. Let that go into the bale so that it will be secure when it arrives at the other end, and that it can be seen what the Government grade was?—That is what I would like to see inserted in every bale.

20. They could then grumble at the Grader because they had exactly what he said about them. If in their opinion it did not come up to that, then they could complain?—Yes.

21. But the other matter with regard to your selling: do you see it is one for yourselves. You get the grade, and we should not interfere as regards the price at which you deal with the merchant. If a few of you get together and lay down what you consider a fair number of points for a certain grade, I have not the slightest doubt but the merchants will be willing to meet you in that view, if you go in for it and seek to put yourselves right?—The merchant will not get away from the Grader's certificate.

22. He will not get away, but you say in your evidence that the range between sixty and seventy-four points is too great—that there is £2 10s. a ton difference; you think that is too long a range: that is a matter for you to fix with the merchants, and say that from sixty to sixty-six or sixty-eight is quite long enough for that particular grade, and make another grade if necessary. You will not get on well if each man runs his own little show, because he gets on well with the merchants. You will do better to fix a general thing amongst yourselves?—Would it not be better to have the grade fixed by the Government?

23. If you do what is suggested, then we are prepared to get that done if necessary?—I believe we could fix that if you wish it.

24. *Mr. Bollard.*] Do you say that the merchants do not encourage you to make a high-class grade of flax because they do not pay for the points?—No, they do not encourage you at all. If you sell "fair" or "common" they pay you accordingly.

25. Do you say that the merchants do not give a fair price for the high grades?—Oh, yes, they give a fair price; but they do not encourage you to make "G.F.A.Q."

26. But if they pay you extra for a high grade they do encourage you?—Yes; but then, do you see, some of the millers cannot make it.

27. But those who can make a high grade, do the merchants pay them?—If you make a high grade you will get paid for it, certainly.

28. Then, why do you say they do not encourage you?—One miller can make "G.F.A.Q." and another only "fair."

29. If they pay you for the points you get paid for every point between sixty and seventy-four?—Between sixty and seventy-four points is "fair" grade, and they will give you a "fair" price for it. If you go over seventy-five points—from that to eighty-four—they will give you £2 10s. a ton more.

30. Then you have nothing to complain about between the miller and the merchant if you get paid for your quality?—Not between the miller and the merchant.

31. Why do you say they do not encourage you then?—I do not see how they do.

32. If you get paid for the superior article according to points, can you expect them to do more than that?—No; but, you see, they only give you a certain price for a certain grade.

33. We had evidence that the merchants did not pay a sufficient amount between a low grade and a high grade; you say they do?—If you get from seventy-four to eighty-four points they will give you, we will say, £26 a ton; you send a line down that only gets seventy-two points and they will deduct £2 10s. a ton off you. I say that is not right; the most they should deduct is 10s.—in fact, there is hardly that difference; you can scarcely detect a difference in three points.

34. Then, you say that the merchants do not give you the full value of the points?—They do not give you points at all.

35. No, but according to the grade?—I do not quite understand you myself.

36. You said they only allowed you 10s. when they ought to allow more?—I say they take £2 10s. off when they should only take off 10s.

37. *Hon. Mr. Duncan.*] I understood that you wanted to explain to Mr. Bollard that whereas there would be only two points of a difference between flax graded to seventy-three points and flax graded to seventy-five points, yet the merchants would deduct £2 10s. per ton in the case of the 73-point grade?—Yes, and I should get just as much if my stuff only got sixty points.

38. They would only give the same for seventy-four points as for sixty-one?—Yes.

39. *Mr. Bollard.*] Then the contention is that the merchants do not deal fairly with the millers?—No, they do not.

40. *Mr. McLachlan.*] Is the difference between some millers making a high grade and others only "common" on account of the quality of the leaf?—The leaf has something to do with it; also the fact that the men do not understand it.

41. It pays you better to make flax that grades at from sixty to sixty-five points?—I believe myself now that I should make more money out of it.

42. We had it in evidence from big millers here that they would not try to make a high-grade

article?—Yes; it would not pay them to do it. The leaf is so diseased now, and this grub is playing havoc with it.

43. Have you yourself ever tried any chemical dressing or anything of that sort on a small scale to see if you could cope with the disease?—No; I have never tried it. It is a grub just like the codlin-moth—not quite as big though.

44. It might be possible to get some experimental men to try experiments on it?—It will come to that directly; some of the millers will have no leaf at all.

DAVID BOYCE, Flax-miller, Tuamarina, Blenheim, examined. (No. 15.)

Witness: I have been a flax-miller for over thirty years, and I have seen as good flax turned out thirty years ago as now. You might think it very strange, but the statement is quite correct. The machine has been improved by Mr. Price, Onehunga. You can turn out a great deal more fibre than then, and the machine is a very good machine, provided that it is properly looked after. If I heard them stripping flax a quarter of a mile off, I could tell whether they were working correctly or not by the sound of the machine. If a stripper is worked correctly, it is something like a good saw—it is always singing; and if it is not, or the bearings are too slack, it is like a jumping machine. You can always tell a slack belt by the jumping. If the belt is loose the machine will always jump. If a driving-belt is put up about 10 ft. high, and running at an angle of 45° or less, the belt has a tendency to lift both the rollers and the drum of the machine from their work. The best way to place a driving-belt is to put it about 4 in. below the spindle of the machine. By doing so it keeps both the rollers and the drum more in their place. There is no difficulty in making good flax if the stripper is looked after. I have seen a stripper working well for ten minutes, and ten minutes afterwards it would be off its work. I have nothing to say against the grading of flax. I think it is an improvement to the whole system. Previous to the introduction of the Government grading system a great many millers found fault with the merchants' grading, and I got a circular stating that they wanted the Government to grade the flax. Well, they have got the Government to grade the flax, and they found fault with some of the first Graders. They wanted some experienced man from England to do the grading. I do not think for a minute that it would have been any advantage to them, for I consider an inferior article is a flax-miller's own fault. Certainly there are different kinds of flax—old flax you cannot dress so well as flax about three years old. Old flax has generally a small red rib in it, and that is a little different from the other flax.

45. *Hon. Mr. Duncan.*] Have you anything to say about the export—after it leaves you—or in regard to the points?—I have always been content with all the merchants I have dealt with.

46. And you do not wish any alteration in the grades?—Well, if you make an agreement for a certain thing, I suppose you must adhere to it.

47. Does the present grading system deal fairly between the miller and the merchant?—That is the opinion of different people.

48. We want to get your opinion?—Well, supposing you agree for seventy-five points, the merchants will give you so-much, and if you do not get seventy-five points there is £2 10s. per ton taken off. But you agree to that yourself. Sometimes you get flax that you can get better fibre out of than other flax. Well, I have asked them if I would give them "fine" would they pay for "fine," but if I sell them flax they will give me the same money for eighty-three points as for seventy-five.

49. Do you think that it fair?—It does not encourage a person to make good flax, and I have told them so; but if you agree to it I suppose you must be content.

50. Would it not be better to alter the agreement? You would be agreeable to alter it a bit I suppose?—Oh, yes, I should, because if you have good flax you can call it "superior" or "fine"; but sometimes you get flax not so good.

51. Look at the samples down there [indicating some samples in the room]?—There was a meeting of flax-millers and merchants not long ago, and I was surprised to see a proposal mentioned that the bad flax that had been rejected by the Graders should be sent Home, let the sample be what it like. They never considered that the man you sent it to perhaps had fibre from some other place, and might mention that this inferior hemp was New Zealand fibre. That would be ruination to the trade. I think it is the flax-miller's own fault when bad flax is turned out.

52. Do you approve of stuff manufactured from inferior flax being prohibited from being exported?—I would stop it, providing it did not injure the miller. I have heard them say it did not matter what they exported so long as it was paid for.

JAMES TOOMATH, Flax-miller, Shannon, examined. (No. 16.)

Witness: I have been thirty-five years connected with the flax-milling industry, and for sixteen years have been a practical miller and ropemaker. The first point I want to bring before the Committee is that there are none of us manufacturers or millers who know really the value of our hemp abroad, and that, whilst the grading is very good, the Graders do not know what they are grading for. I consider that it is necessary that the Chief Grader or some practical man should go abroad to any part of the world in which our flax is imported, and ascertain what use it is being put to, and the value of the manufactured article. It is generally accepted that our New Zealand flax is only sufficiently good for rope-making and binder-twine purposes. Well, I contend that it is being used for fabric and other manufactures, and that its value is not sufficiently known. In proof of this, I myself shipped to a firm of merchants (Ledger, Smith, and Co., of London) a specially prepared line of New Zealand flax, the return for which was quoted at £75 per ton. I have not continued on this line, simply because there was a slump in the market, and for the time being I went out of the business and have never since had an opportunity of dealing particularly with those lines on my own to try and exploit flax. So that we want to find

out first of all the real value of our fibre abroad, and then manufacture for that particular line. If our fibre is only sufficiently good for rope and twine, then the grades of "fine" and "superior" are no good to us, and might just as well be knocked off the schedule altogether, because they are only just a guide for merchants, and are of no practical use to the miller. There is another point: the value of our hemp of particular brands is not sufficiently known abroad. The points scored by the grade should go forward on the certificate, so that they should be known by the buyer or manufacturer on the other side, and some means should be devised by which the certificate of the Grader or the tag could not possibly be tampered with. On the grade, already touched upon, my opinion is that for grading purposes each line of flax should be graded according to its own merits or value. If "common" it should be graded as "common" for so many points, if "fair" the same way, and if "good fair" the same way. To illustrate this—I speak now as a ropemaker—a line of flax is offered to me as "good fair," valued in England at £32 per ton. A line is offered to me as "fair," 73-point stuff, valued in England at £27 10s. per ton. As a rope-manufacturer I look at the lines and see that the "fair" flax at £27 10s. per ton contains all the "good fair" hemp that I want for manufacturing purposes, at a lower price, and I buy that. The merchant who sells to me in New Zealand concludes that the "good fair" flax in sufficient quantities is contained in the "fair" flax, so he contracts with the New Zealand millers to mill that class of flax, and consequently no further values are reached. I contend that if it were possible to use that flax by further dressing abroad for fabrics—to, say, a value of £75 per ton—the colony as a whole and the millers generally are at just that much loss. There is also this consideration: not knowing the value of the flax abroad we are racing through the flax-swamps to manufacture an inferior article, depleting the swamps of the flax, and practically doing very little good for ourselves, whereas if we could mill a smaller quantity of flax at a standard value, then the flax-swamps would last longer, and we should all know just exactly what we were doing. I say, to get this information it is necessary that an expert should go abroad, that he should ascertain how much of our New Zealand fibre is imported into the different countries; how much it is improved abroad, or rather what work is expended upon it there that could be done in the colony; and what sort of machinery is used that could be manufactured here or imported to bring this flax to such a value that the money that they expend in further improving the flax abroad could be spent on improving it here. If it were ascertained for us that it was only usable for rope-making purposes, and ascertained from observation just what quality of flax is required, then fix that as the standard grade, and educate every miller to manufacture to it. As we are working at the present time, coming back to our own New Zealand mills, I want to emphasize this particularly, that there is not sufficient difference between "fair" and "good fair" flax. A merchant pays at the present time for "fair" £24 per ton. The grade-note shows that seventy-three points have been secured for the "fair." At the same time seventy-five points have been secured for the "good fair," yet the merchant pays £24 and £26 10s. per ton respectively, and the value to the ropemaker is in favour of the "fair" flax. I contend that the merchant makes a profit where the miller ought to make it. Then we come to the difference in the varying qualities of the flax. I consider that under the grading staff we certainly require, as we have in the butter industry, inspectors or instructors—whichever you may choose to term them—who would be able to ascertain how it is that certain mills are not turning out the good quality of flax that they should be able to turn out. To illustrate the use of an inspector, I was in a conference in Wellington some time ago when my attention was drawn to a line of flax that was condemned by the Graders. The same miller with the same machinery is turning out from the same leaf a flax which is pointing from seventy-five to eighty-three points, proving that it is possible under proper supervision to mill a "good fair" flax, even under adverse circumstances as far as the leaf is concerned. The difficulty is that with the question of points one man is a practical miller, and he knows why his flax would give the quality that it is; in other instances we have men engaged in the industry who know nothing about flax stripping, bleaching, and scutching. They are entirely at sea, depending altogether on employees, and where the employees go wrong they cannot set them right. If we had an instructor he could step into the proprietor's position and teach the men what to do. Then, again, we have in connection now with all our industries where steam power is used the Government certificate, which engine-drivers pass an examination to get. It is a recognised fact that with all our motor-power there should be some supervision and some care taken of boilers and machinery. Exactly the same with the flax-dressing. I say that our stripper-keepers who are practical men should have to pass an examination, and that like the engine-drivers they should be certificated. We should know then what sort of a man we were employing. There was one thing I should like to mention regarding the Grader's certificate—that is, that the points should at all times go forward on the certificate to the manufacturer on the other side. There is another point I have noticed—that is, as to the value of the grade. Do not think for a moment that I agree with the Graders, because I do not. In 1891 I manufactured a line of hemp. I was not in any way satisfied with the Graders, or with the Government interference in the flax industry. I was under the impression that flax was a line that the Government might have left alone. I took a hank of the 1891 manufactured flax, and asked the Head Grader and some of his staff to grade it. I took a hank of my own manufacture of 1905 flax—also a "good fair" line—and asked the Head Grader and his staff to point it. The 1891 line was graded 75-point stuff, and the 1905 flax was graded 76-point stuff. There was only one point difference between the two. It was very evident that there was the same general average; "good fair" quality then was "good fair" quality now. It showed that there was very little variation. I am perfectly satisfied from practical tests of the value of the grade. We all know its value if the Government will only go far enough—if they will only go as far as with the butter. Otherwise they are going to ruin the industry and throw us to the merchants. I have tested a line myself, and I asked what grade it would go into, and they put it into exactly the same position this week as they did last Christmas. I would like to also point out this with regard to the green leaf: if the Govern-

ment had such an inspector as has been suggested in connection with the staff, in the case of a miller complaining that he was getting such a bad leaf that he could not possibly manufacture a good article out of it, it would be the business of the inspector or instructor to see this diseased leaf, and see if it were so. If that were done, we should have somebody at our backs who would help us. At the present time many of us are entirely at the mercy of the green-flax owners, and we cannot help ourselves. I will illustrate my contention. A syndicate of three or four buy an area of flax, and put in a flax-manager who knows practically nothing about his business. His duty is to supply green flax to the millers. He calls for tenders for cutting the flax in areas. Generally the lowest tender—the tender which cannot possibly pay—is accepted. The consequence is the contractor employs his cutters, but, not getting remuneration for his own labour, he has got to beat down the employees. The result is that they cut the flax, raupo, rushes, and any rubbish that comes in their way. This is bundled up, goes to the miller, and the millers have got to take it, for the expense of weighing back and deducting the rubbish would cost more than to take it and throw it into the rubbish-heap. If the inspectors knew this, and green-swamp owners knew that leaf came under Government inspection, they would be very careful in the way they managed green-flax swamps, and millers would be able to turn out a better article. I mentioned just now the consequences that would arise if the Government did not go far enough, or farther than at the present time. By that I want to emphasize the necessity of the getting of this evidence abroad in regard to our hemp exported there, and the appointment of instructors to help the miller to get a good standard quality of flax. I am certain that if we could get at the value of our flax, we have got the fibre out of which as much can be made as out of any fibre that can be grown in any part of the world.

53. *Hon. Mr. Duncan.*] I notice that the witness has stated that he got the same grade last Christmas and now?—The same hank and line.

54. It is evident from your evidence that the Graders know their business?—They do.

55. What would be the difference in price between "fair" and "good fair" if no points were shown? If the Grader simply stated "fair" would the merchants make a reduction of £2 10s. per ton between the two grades?—No; they would buy according to quality, and would not deduct it.

56. The loss to the miller is due to the loss of points?—The loss is the miller's. He brings a line which would be a "good fair" line in the hands of the merchant, and that is brought into "fair" perhaps by the loss of two points. There are so many points for scutching, stripping, finish, strength. Supposing a point is lost on the finish and one on the scutching. Neither of these is sufficient to make it bad for manufacturing purposes, yet the loss of the two points is quite sufficient to throw it out of its value.

57. You say they do not take advantage of the points?—They do take advantage of the points, but if the grading certificate did not appear we should go to the merchant and the merchant could not detect the difference. If it was not classed at all they would not know the difference. It would go through as "good fair," but the Grader on the one point throws it back £2 10s. per ton, and I have not the slightest doubt but that they take advantage of the certificate on the other side, and we cannot get back to where we were some years ago on the value of our hemp.

58. You are a ropemaker as well as a flax-miller?—Yes.

59. Can you utilise inferior grades in ropemaking?—Yes.

60. Do you think it is wise or otherwise to send Home those inferior grades—that shipping them Home would have a bad effect on the flax industry generally?—Most decidedly.

61. You think it unwise?—Most decidedly I think it unwise to allow it. As a ropemaker, when I am using an inferior line I would use it for what is called "hard cord." It would be completely buried out of sight, and nobody would be able to detect it.

62. *Mr. McLachlan.*] What about strength?—It would not be there. It would break when submitted to a heavy strain. I would approve of entirely shutting out the low grade from export.

63. *The Chairman.*] You made reference to the high grade?—Yes, 75-point stuff.

64. Would there have been an extensive market for that high-grade flax?—I am not in a position to try that.

65. You think the experiment is worth trying?—I certainly wish I had the money to go Home and exploit it for myself.

66. Reference has been made to the possibility of removing tags, and it has been recommended that there be a parchment tag on the outside, and one in the centre of the bale corresponding with that?—A very good idea, indeed.

67. *Mr. Bollard.*] You strongly condemned the sending of condemned flax out of the country?—Yes, for manufacture or in the manufactured state.

68. You are a ropemaker. In consequence of its being condemned and not being sent out, you can buy it at your own price?—Yes; practically; quite so.

69. Consequently it is a great advantage to you as a ropemaker that it should not be sent out?—If the low-grade flax were not allowed to be sent out I should not be able to buy it, because there would be none manufactured.

70. Do you say that inferior flax is solely due to want of knowledge on the part of the manufacturer?—To that and carelessness.

71. If there was a demand for it in the Commonwealth of Australia, would you not favour its being sent there?—If there is any demand it could only be from competition with New Zealand ropemakers.

72. If it sold for £8 or £9 per ton in the colony, and it could be sold outside for £15 or £16, would you not think it would help the miller to allow it to be exported?—It would not help him at all.

73. Are there not cases in which inferior flax is not due to any fault of the miller?—They are extremely remote, and only arise from low-lying paddocking grounds and bad bleaching. Otherwise there is no need why "common" flax should be manufactured at all.

J. T. MITCHELL (Fildes, Mitchell, and Co., Flax-merchants, Wellington), further examined.
(No. 17.)

Witness: In connection with points of grading, speaking from a merchant's point of view, I think that the flax-millers are receiving to-day the real and correct value of the points in the grade that they are producing. There was a matter brought under my notice by certain certificates after looking up correspondence. To show that I was prepared to pay for a higher article, I instructed my clerk to give 10s. per ton of a difference in price for a line that went out of the "good fair" into the "fine" by one point. To-day buyers from the Commonwealth are for over seventy points in the article they require, showing that the lower grades are really not asked for; and I am quite prepared to pay for flax over seventy points only a difference of 10s. per ton between that and the higher grade, whereas our sale-note has been put by the Chamber of Commerce as £2 10s. as the recognised difference in the mercantile value. Mr. Smith said he received no difference in value between sixty points and seventy-four points; hence I wish to reply on this matter. For a number of years I have given a special prize to the Manawatu Agricultural and Pastoral Association for the best bale of hemp suitable for exportation exhibited at their show. For three years Mr. Pascal has succeeded in obtaining it. I believe that on the last occasion there was only half a point between Mr. Pascal's hemp and that exhibited by Mr. Adams, of Blenheim. I admired the trouble the Chief Grader took in examining it. I offer these remarks to show the interest I have taken in the industry. On my return to Wellington I wrote to Mr. Pascal asking for what price he would supply 50 to 100 tons of equal quality to the bale exhibited. His reply was brief and to the point: "Would not attempt to mill it." So I think that, Mr. Smith, I have replied to your remarks in connection with the points.

74. *Hon. Mr. Duncan.*] What price did you offer him to supply you with this higher quality?—I wrote and asked him if he could supply me with 50 or 100 tons of equal quality, and at what rate per ton. Now, the bale exhibited by Mr. Adams was taken out of a consignment for shipment, and no unnecessary or extra care was taken in the selection. It was simply taken out of a line that arrived through Wellington, and was sent forward to Palmerston. The difference between the exhibits of Mr. Popplewell, Mr. Adams, and Mr. Pascal was only a point and a half. I asked Mr. Popplewell how he had selected his bale, and he said, by picking out flax-blades of equal length and quality, and putting it through as quickly as possible to try and secure the prize.

75. Is it not possible that it might go to show that it was the quality of the green flax that made the difference?—Mr. Adams's hemp went through in the ordinary way. Perhaps his was a better quality of green flax. I received seventy bales from him in one consignment, and you could not detect the difference. There was not a "cronk" hank. I have taken a great interest in this industry, and I think this inquiry should be a most exhaustive one.

76. I want to know a little about it too, and I want to learn. In your opinion, can they turn out as good a flax from Makerua as from Blenheim?—No, owing to the water. At the same time, when I was managing a property for my father, going back thirty-five years ago, the Maoris planted kumaras in rows and flax 6 ft. or 8 ft. or 10 ft. apart. I know I have often gone out of my way to get a cracker for my stockwhip from that flax. It is marvellous the difference the transplanting makes in the fibre.

77. You think that if cultivated it would be much superior to ordinary swamp-flax?—Confident, sir. And instead of hemp bringing £30 per ton as it does to-day, it would in all probability bring from £50 to £60. I have samples of fibres from all parts of the world, including two classes of Manila, one being to-day quoted at £39 per ton, and the other at £60—showing the wide margin in the actual value.

78. *Mr. Kirkbride.*] The other witness said he got nothing from over sixty points to seventy-four. I did not catch your reply to that?—In connection with that, I am buying within 10s. per ton from over seventy points to seventy-four. I pay a fair value, recognising that the difference between sixty and seventy-four points is too great. Probably the miller may suffer to some extent; but I am speaking as a merchant, and I find from the last advices I have received from the manufacturers in Australia they are asking for flax over seventy points.

79. You say you are paying within 10s. per ton of the price ruling in the higher grade for flax that gets from seventy to seventy-four points?—Yes.

THURSDAY, 12TH OCTOBER, 1905.

HERMAN SEIFERT, Flax-miller, Invercargill, examined. (No. 18.)

Witness: I come here representing the Southland Flax-millers' Association. I have been chairman of that body since it started, about twelve months ago. It should be well known to the Department that our association existed, as I was sent here by it to a conference about six months ago. There were a few motions put to the meeting when I was appointed, and I will give them to you as I go along. It was resolved, "That this association resolves that the system of grading is on a wrong basis, as too fine stripping is insisted on, a coarser strand being much less costly to produce and more acceptable to foreign consumers; that the Committee be asked to fix a standard by recommending the Department of Agriculture to give effect to this resolution by the constitution of a conference of millers, Graders, and fibre-export merchants." In proof that grading as it is now done is not satisfactory and was never put on a proper basis, I had sold a considerable quantity of "good fair" before grading started, and had only started delivering the

contracts when the Grader put the whole of the line into "fair." Notwithstanding this, the buyer took and paid for the whole of the contract as "good fair." I did not have a single bale rejected, although the buyer had no need to accept as he did, and could easily have got out of his contract, seeing that it was only put through as "fair." I was speaking to him as I was coming through, and he said not only was it "good fair," but he sent it to people he had been dealing with for a long time, and who were about the largest manufacturers of twine in the world, and he said it was sent to them as a special quality. I refer to Messrs. William Wood and Co., of Christchurch. Since then I sold a line of 50 tons "fine" quality to Messrs. Donaghy and Co., of Dunedin. I told Mr. Passmore, a member of the firm, when he was wanting to buy, that the Grader would not give me "fine" for it. He is managing director of the firm, and does all the buying. He, however, said he was quite willing to take the sample he saw as "fine." I completed that contract, and did not have a single bale rejected. Never before or since have I got a single bale of that brand graded "fine" by the Government Grader. Messrs. Donaghy and Co. had to pay freight on this hemp to Auckland, although there was plenty of hemp being dressed there at the time which could be bought cheaper than mine delivered in Auckland, and also graded "fine" there. I have Mr. William Wood's authority to mention the following particular case, which is not my own at all; but the Committee will understand that there is considerable difficulty in getting specific cases. There was a line of about 25 tons at Picton, which was graded there as "fair" quality. Mr. Wood bought this under a contract as "good fair," and resold it to a Home buyer. When Mr. Wood saw it he considered the line "good fair," notwithstanding that it had been graded only "fair" quality by the Government Grader. Mr. Wood was so satisfied that the line was "good fair" that he shipped it to his buyers, and wrote explaining to them that it had been graded "fair" by the Government Grader, but that in his opinion it was "good fair," and to use their own judgment about it. If they thought it was only "fair," they could make such allowance in the price as they thought proper. They replied that the hemp was certainly "good fair," and that they were quite satisfied to take it as such. The following was another resolution, something similar to the last, also adopted by the conference: "That members of this association consider that there is an excessive standard being aimed at in the matter of grading Southland fibre at the Bluff, which is causing serious loss and friction to members of our association." One of our local millers at the present time has a contract to supply "fine," but he cannot get a single line through, although he is one of the oldest millers in Southland, and has dressed for almost all the principal manufacturers in New Zealand.

1. *Hon. Mr. Duncan.*] Perhaps, because he has the oldest mill, it is out of date?—Oh, not at all.

2. What is his name?—Mr. George Edwards. He sold "fine" before the Government grading started, and never had a single bale rejected. I know that his last contract before the Government grading started was for "superior," and, so far as I know, he did not have a single bale rejected. It seems strange that now, although he has all the advantages that he previously possessed, he cannot make better than "good fair"—seventy-nine to eighty points. If the hemp he is producing at present was graded the same as then he would be well into "fine," and getting not less than £3 per ton more. This is a serious loss, and means that he is losing £3 per ton through the Graders following a system not in line with the requirements of the trade. I mention these facts merely to show the serious loss that millers suffer through the grading not being in line with the requirements of the trade, as the miller has something else to do besides milling fancy hemp if he wants to make his mills pay. This is one of the reasons why millers have very little confidence in the grading system. Before the Government grading started there were certain standards which were well known. These standards were greatly altered by making "good fair" more difficult to reach, and not so well suited to the foreign consumers. I consider a great mistake was made by not consulting the millers and merchants, and by putting the matter into the hands of one man without consulting foreign requirements. The following resolution was also adopted at the conference I refer to: "That, owing to the limited areas of flax, this association favours the Government reserving the right to resume any areas of Crown lands suitable for the propagation of flax." The areas of flax in New Zealand are certainly very limited, especially down our way. What flax there is is scattered over a very wide area, and in very few places is in what you would call a good block. We think that if the Government would assist in that way, it would not be very costly, and would help the industry to a certain extent. I believe there are areas in Southland that could with advantage be taken over for the purpose of conserving the flax. Another motion adopted was, "That, in the interests of the industry, no condemned fibre be allowed to leave the colony." With reference to this, I may mention that personally I am not exactly in favour of it, but it is the decision of the meeting. I do not know that you will suit everybody by adopting a system that will have the confidence of the millers. Down our way they wish that no condemned fibre be allowed to leave the colony. I have one more matter to bring up—namely, the following resolution of our association: "That this association considers that the Department should hold an inquiry in reference to the Bluff Grader's (Mr. Shea's) services being dispensed with, as he appears to have given satisfaction to all concerned." There is considerable feeling in Southland with reference to Mr. Shea's dismissal, and we have not been able to learn of any complaints either from millers or merchants about his work. If he has been giving satisfaction to millers and merchants we want to know why he was dismissed. I believe that he graded and did more writing—he had to write his own certificates—than any other Grader in New Zealand; and, in addition to that, he had to travel from Invercargill to Lyttelton and grade at Dunedin, Timaru, and Lyttelton, as well as the Bluff. The Bluff store is small for the amount of hemp that comes into it, and consequently requires special attention. I feel quite sure that Mr. Shea on many days worked twelve hours a day to get through his work. Through the whole of last summer he left for his work before 8 in the morning, and as a rule did not finish before 8 o'clock at night. It appears to the Flax-millers' Association a very poor recompense after a man has done his best

that he should be turned out without reason. There appears to be no system of teaching grading. When Mr. Shea first started, one would have expected that he would be coached up at headquarters before being sent outside where his work could not be compared. I understand that there is no system of coaching. Under such circumstances can one wonder that there is no standard of grading throughout the colony? Now, when Mr. Shea has got a fair knowledge of the requirements, he is asked to resign.

3. *Hon. Mr. Duncan.*] I take it from the resolutions you have read here that the Southland people have not been in accord with the grading?—No; that is so, or the system.

4. What do you mean by the "system"?—What I explained just now.

5. Do you consider that the Graders do not give you the number of points that the flax warrants?—What I say is that they are asking for a "fine" stripped fibre, and compelling us to dress it, when it is not wanted, and it is very much more costly for the miller to produce. In Southland fibre is very much coarser than in the North, and consequently it is very much more difficult to get "fine" stripped fibre. Outside of that, it is not required. I particularly asked Mr. Cruickshank whether he preferred "fine" stripped fibre, properly scutched and cleaned, or coarse fibre, properly scutched and cleaned, and he said that there was no comparison between them—that he would not look at the "fine" stripped fibre.

6. Who is Mr. Cruickshank?—He purchases about 500 tons of twine a year in Invercargill.

7. I would like to have this cleared up—whether the feeling of the millers was that the grading was not properly done, or that they considered the Graders were placing the points too low?—The feeling of the people down there is that the standard has been set for too fine a grade, and consequently that Mr. Shea had to throw out stuff whether he liked it or not. Of course, we understand that there is a Chief Grader, that the other Graders come under his directions, and that he points out some sort of a standard to go by. Consequently Mr. Shea had to throw out stuff whether he liked it or not, or he could not give satisfaction to his chief.

8. Is not that more the fault of the merchants and millers than of the Grader—having the grades too low?—We cannot do anything. We have no power to suggest anything to the Grader as to how he should give points.

9. You have not caught me exactly. Do you not think that the difficulty is more in fixing the grades for a certain number of points such as you have in force now? Is there not more difficulty there than with the Grader?—The standard is set too high.

10. Why do you not alter that?—I am not very clear yet as to what you mean.

11. You have from sixty to seventy-four points of a range for a certain grade?—Yes, that is merely an ordinary grade of "fair." It is nearly "good fair," and is not much off "common," owing to the long range of points—sixty to seventy-four.

12. Is there not a difference of fourteen points between "common" and "good fair"?—I certainly think there is too much space there—that it should be closed up. A lot of stuff that gets seventy-two points comes below "good fair" in grade, but would be quite suitable and better than a lot of stuff that gets seventy-five points and reaches the grade of "good fair."

13. In what way, supposing it is the same flax, do you mean to say that 72-point flax would make a better twine than 75-point flax?—In a number of cases I am positive about it. If I were buying for a spinner, I should not have the slightest hesitation in taking 72-point flax for 75-point flax.

14. In which place do you put the advantage, then?—A lot of the 75-point grade is too fine; but the difficulty, from a spinner's point of view, is the knots on the flax and bad scutching. A lot of stuff that has been well scutched and well washed is better than what has been well stripped. I have seen it with knots hanging on the tails going up to seventy-five points, and I have seen stuff perfectly scutched, which is the important point, put into the 72-point grade, through some other point which did not affect its efficiency. I worked for twine-spinners for some years in the flax-milling business, and I know about it, because all the complaints came to me direct. If ever I had a complaint at all, it was on account of the fibre being too fine or badly scutched at the tails.

15. What do you allude to when you say "too fine"?—Too finely stripped. It makes a nicer looking fibre to look at, but is not so well adapted for spinners' requirements.

16. Then, it appears that you had not much fault with the Grader when you wish to have an inquiry as to why he was shifted?—We are finding fault with the system, but not with the Grader; because for the last twelve months I have not been able to find any complaints in regard to the Grader.

17. It is only the system, then?—That is all.

18. Could not you and the merchants set the system? It is not the Grader who should do it?—Then, there would be no standard throughout New Zealand.

19. Is it not your business to get together and make a standard?—We tried to do that.

20. But you have not done it?—I came here before and recommended that sample bales be fixed, and I think that was carried. If that had been done in the first place there would have been very little dissatisfaction, because it is a pity that the standard grade fixed before the Government started grading should have been altered.

21. Is that the fault of the Graders or the merchants?—Somebody must have done it.

22. You quite understand that it is of no benefit to the Government or the Grader to do anything that is not in your interests—to help you? They do not want to do anything that would be materially against the trade in any way, but they want to assist you to get as near a grade as possible so that they would be as near as possible?—It should be uniform. The only possible way to do that is to call the Graders, buyers, and flax-millers together and get the thing settled. People would be satisfied afterwards. A peculiar thing about Southland hemp is this: I mill for Messrs. William Ross and Cruickshank. Neither would take hemp from Wellington at all. They took ours in preference at a time when hemp was selling here at £10 10s. per ton, and we never received less than £14 10s. per ton for it. Yet, since the Government grading has started we were all

put down in a low grade simply through the Graders demanding "fine" stripped fibre, that cannot be produced. I do not say that it cannot be produced, but it is not wanted, and "fine" fibre takes more work in the scutching.

23. In your opinion, is there that material difference in the hemp that if fine quality was required they could not with the same machinery turn it out in Southland as in any other place?—If a very fine quality of fibre was required, I would not recommend Southland to produce it. At the same time I want to be quite clear that I do not think such is the case, because all my experience points to the contrary.

24. You mention about the flax as it were getting scarcer, and not a large quantity to be found in any special place?—That is so.

25. Have none of the settlers done anything to remedy that?—Very little has been done; almost nothing.

26. What is the grade generally? Have you any standard in the price at which the flax is supplied to the millers?—No; it all depends upon the price ruling and the trade—anything between 5s. and 10s. or 12s. on the ground per ton, and from £1 5s. to £1 8s. delivered at the mill. It may be more or less.

27. Do you not think that if it would pay the Government to go into this matter it would pay the settler equally well to go into it—that the settler or the flax-miller could do it cheaper?—The drawback is that the time is too long to wait for results. As a rule, a man does not care to wait six or seven years for his returns, and then take a risk of fluctuations in the market.

28. Are you aware that the process of cutting, especially when the flax is cut too low, is against the growth of the flax?—I am well aware of that. The way it is cut now is simply wasting it.

29. And you think that some arrangement should be come to to stop that?—Yes, I am well aware of that. Some years ago I bought a quantity of flax, and the agreement was that I was not to cut within 9 in. of the root. In Southland half of the flax is almost grubbed up by the roots.

30. *Mr. McLachlan.*] You would not recommend the export of condemned flax? What use would you put it to here?—Well, I suppose the local twine-spinners here would buy it up and use it for making lashing, or probably put it into better stuff and use it for making twine.

31. It would be good enough for the New Zealand farmer?—It would appear like it. It could be used for rope-making, of course.

32. It could be used for low-grade rope; it would not be suitable for twine?—I would not recommend it for twine. It could be used for low-grade rope or lashing-rope.

33. It appears there is a great diversity of opinion amongst flax-millers about the grading? We had it here that it was giving satisfaction?—That is very easily understood. The man who is getting "fine" or "superior" is not likely to complain very much, because he is getting all he wants. If the people interested have not an opportunity of coming here and giving evidence, you cannot hear all sides of the question. From Lyttelton to the Bluff the only invitation sent out by the Committee was to the Chairman of the Invercargill Chamber of Commerce. We got no invitation to this inquiry until we asked for it. There is Mr. Wood, of Christchurch. The season before last he bought half the hemp in Southland, but he had no opportunity of giving evidence. I questioned him coming through. I could not find any invitation except to the Invercargill Chamber of Commerce. Surely the flax-millers ought to be equal to the merchants, at any rate.

34. Invitations were sent to all the Chambers of Commerce?—Our association received no invitation. It would be pleasing for us to know that, because we should have had very much more evidence.

35. I think it is the desire of the Department that every one interested should have an opportunity of placing his views before the Committee?—Mr. Steven, buyer for Wood and Co., of Christchurch, would have been very glad to come here, and Mr. Edwards, one of the oldest flax-millers in Southland. Our association got no invitation, except one from the Chairman of the Committee, after I wired to him asking for it; and, of course, we were very thankful to receive that, because we thought we were going to be debarred altogether.

36. Do you not think it would be to the advantage of the whole business to shift these Graders round about—the same as Wesleyan parsons?—If each Grader was kept in the one place until he got a thorough training there might be some uniformity in the grading. Our Grader was sent down without any training at all; I am positive of that.

37. This man who you say has been told to send in his resignation has been giving first-class satisfaction?—Yes, for the last twelve months. At first he was not.

38. *The Chairman.*] Have you heard any complaint about the removal of tags from bales—for instance, on the wharf or after being shipped?—I have never heard of an instance occurring; but I think it would be to the advantage of millers if something like a cloth tag were inserted in the bale. It could be easily forced in, and no one would know where it was.

39. There has been a consensus of opinion on that point. The desirability has been expressed of the appointment of experts—men to go around the various mills as instructors. Do you think it would be any good?—If the millers had any confidence in the man he might be able to do some good—he might be able to teach some of the millers something; but the whole thing would hinge on that. He would have to be an exceptional man, I think.

40. *Hon. Mr. Duncan.*] I should like to get something further about this difference between the grades. What is the average price of "fine" grade in Southland at present?—Well, up to last winter it would take you all your time to get £1 per ton more for "fine" than for "good fair"; but last winter there must have been some special demand for "fine," and it went up to £3 per ton more. Of course, it cannot be produced at all with us under the present system. The quantity of "fine" is trifling compared with the flax turned out.

41. That would almost go to show that in Southland they would be handicapped to the extent

of £3 per ton?—I do not know that they would be now. I speak of last winter. At one sale I know there was a difference of £2 10s. or £3 per ton.

42. You think it would not pay them—a high grade?—No; but I claim that some of it is “fine” now. Messrs. Patterson and Co., of Dunedin, bought some hemp, and the buyers wrote to the millers that in every respect the hemp was satisfactory; the only fault was that the leaf was a bit short, but they took no exception to that. It was not the millers’ fault. I have no doubt that if Mr. Thompson (manager for Messrs. Patterson and Co.) were called he would show that.

43. Do you hear many complaints about the leaf being short?—I have never heard them complain much about it.

44. Perhaps you have not seen much that was very short?—No, I cannot say that I have. The fault, I think, is that it shows more ends in the twine. This affects the appearance of it, because there are more ends to stick out.

45. The longer the flax the smoother the twine?—Yes, and the nicer the finish.

At the Hon. Mr. Duncan’s request, the witness examined some hanks of flax in the room, and expressed his opinion regarding them to the Committee, the Secretary to the Department of Agriculture (Mr. J. D. Ritchie), and the Chief Grader (Mr. Fulton).

46. *Hon. Mr. Duncan.*] About altering the grading, I think it is the business of the millers and merchants to deal with that; that we should confine ourselves to giving you the points, and that you should alter the grades to whatever class of stuff would pay best?—I would certainly be in favour of that. I would not be in favour of altering the grades very much, because, if we let the worst hemp go through or reduce the standard, we should be doing an injustice to the foreign buyer.

47. And that would react upon yourselves?—Certainly; we have got to pay for the lot in the end. In this case, about the coarse hemp, I think it would give more satisfaction by allowing it to go through a little coarser than now, more especially by allowing in it a “good fair” grade, so long as it was equally cleaned.

WEDNESDAY, 25TH OCTOBER, 1905.

Mr. G. MCGREGOR examined. (No. 19.)

1. *The Chairman.*] Will you be kind enough to give the Committee your full name?—Gregor McGregor.

2. And your address?—Maxwelltown.

3. And occupation?—Farmer.

4. The Committee will be very pleased to hear any statement you may be disposed to make, either as to flax-growing, flax-milling, or as to the export trade of the flax industry generally?—Well, I may say, Mr. Chairman and gentlemen, that I have studied the flax question very closely for the last thirty years. At the same time, I may tell you that I have no axe to grind. I do not own flax myself, nor have I any interest in the milling or any of the financial aspects of the flax question at all. I simply take an interest in the matter in regard to the collection of the different varieties, and the testing of these varieties from time to time. Now, there are a great many different varieties, and each variety has its own peculiar value. I may say that during the past twenty-five or twenty-six years I have been through all parts of the North Island, particularly among the Natives, and it was from them that I first noticed there were so many different varieties, each locality having its own special varieties—varieties cultivated by them for particular uses. Take one of their ordinary mats, for instance. There will be two or three different varieties of flax in the same mat. The body of the mat will be a fine, soft, white fibre, and the edges in many cases will be made of the coarsest and strongest fibre procurable. These two fibres will have been grown for this specific purpose. Then, in the manufacture of their fishing-lines and ropes, which would require a strong and elastic fibre, these ropes and fishing-lines would be made from fibres especially selected and cultivated by them. It was this in particular which drew my attention to the fact of the relative values of the different kinds of flax. Since then I have studied the matter very carefully. I have studied the growth of the flax, and from time to time I have tested the fibres, and I find there is a great difference in the quality of the fibre. I have also found a very marked difference in the quantity of the fibre to the leaf. Some flax-leaves which may have a strong fibre are absolutely unfit for milling purposes, in that the quantity of the fibre to the leaf shows too much waste. Then, on the other hand, with regard to other flax, although the fibre may be much finer, it is a strong fibre, and practically the whole leaf is fibre—there is practically no waste. These, in my opinion, are the varieties which should be collected and cultivated. I find that in many districts through which I have travelled each locality has its own special or particularly best variety—that is, from the Native point of view—strong, bright, elastic fibre. In many cases many of the so-called varieties are really one and the same variety under different names. Of course, the same thing obtains with regard to fruit or anything else; but I think this is so to a more remarkable degree with regard to flax than anything else. There are at least three so-called different varieties in my own district which are one and the same variety. This I have proved conclusively. The ordinary flax which is milled—we will call it the swamp-flax—it is a flax that grows to a great length, and is much sought after by millers. It is in ninety-nine cases out of a hundred practically a useless flax, because, although there is plenty of fibre, the fibre is coarse and very brittle, and more easily damaged by the stripper than a finer fibre. There is also another matter I wish to refer to, and that is the cultivation of flax. I have studied the matter for some time, and by cultivating the flax the quantity and quality of the fibre is very much improved, particularly the colour of the fibre. I know that under systematic cultivation it would give a greater yield of fibre, and I can say with every degree of truth that it certainly improves the quality of

the fibre—the fibre becomes brighter and stronger. There is another matter I would wish to mention, and that is perhaps of some interest to the millers: You will never see a Native by any chance, if he wishes to get a good strong fibre, take an immature leaf. He invariably takes the leaf which is fully matured. Of course, the reason is obvious—the immature leaf gives much the weaker fibre. Now, in milling, of course, everything is cut that will give a fibre, whether short, long, matured, or immatured, and the whole thing is put into one hank. In that hank of fibre there must be several qualities of fibre, and that is, to my mind, detrimental to the sale of the flax. This flax business—the selection of the different varieties and the cultivation of the flax—opens up a very vast and important question. I do not see why some of the very best varieties should not be secured and scientifically tested and cultivated. I do not see anything to hinder the flax industry being made one of our most important exports, and I think the size of the leaf could be increased to probably double, with better fibre, if carefully grown and hybridized, as in the case of fruits and plants of all descriptions. There is one matter that I feel very strongly upon, and that is the careful collection of all varieties independently of their value. I say that every variety has its value—perhaps not a commercial value—but it has a value of its own. I would suggest that a collection be made of every variety grown in New Zealand. This would be extremely valuable, to my mind, quite apart from its value commercially; but, of course, the commercial gain would be very great. I feel confident if this collection was made and the different varieties tested there would be a great many varieties which are now milled which would be discarded, and others of greater value would be taken in hand and cultivated. There is another matter, as to the cutting of flax, or, rather, as to the cultivation of flax in the first place. The average opinion seems to be that if you plant a root of flax anywhere or anyhow it will take care of itself. That is the greatest mistake. There is nothing that will respond to careful cultivation like flax—hardly anything I know of. Of course, this is a matter which has not been tried to any great extent—the cultivation of flax—except in isolated cases, and among the Natives. If you go to a Native settlement—either a new settlement or one which may have been occupied for perhaps a hundred years—you will find cultivated flax there growing luxuriantly, and infinitely better than the flax growing wild. It is simply a matter of cultivation. Then, as to the cutting of flax. With the miller, as a rule, everything is cut; the butt of the plant is cut as low as they can get down. Of course, the more weight of fibre there is the better it pays. That will in a very short period exterminate the flax, particularly in a cold climate. If the flax continues to be cut as it is being cut at present, in a very few years we shall have no flax at all to mill, either good, bad, or indifferent. I also learnt from the Natives that they never on any account, unless they wish to kill the flax, cut the centre leaf of the plant. I have also made experiments with regard to the growth of flax and cutting, and I find that if you cut the flax every year you will have more flax, and of a more even quality, than if cut every four years. If the flax is cut after a period of four years you would have less flax for the period and of much more uneven quality. I think myself that, without some systematic cultivation and cutting, the flax industry will very soon become a thing of the past. This cutting of the flax, to my mind, is of the utmost importance. There is also another matter which I have not heard much of, and that is the raising of flax from seed. I have in a small way experimented with seed, but I cannot say that I have as yet come to any definite conclusion upon the matter. It grows, and grows fairly quickly; but what I wanted to ascertain, and shall probably be able to ascertain next year, is whether you will be able to get the same results from the seeds as from the parent plant—that is, as to quantity and quality of fibre, &c. That is a matter which could be easily ascertained in a few years. Of course, in the majority of cases you will get a different article, and by careful selection and by careful growing you will probably get a much better article than we have at present. I think it must be patent to every one that with respect to a plant of this kind, where there are so many different varieties, there must be a vast difference in quality. That is the reason why I would urge that the Government should make this collection, and then by careful selection and testing find out the best varieties which could be cultivated. It seems to me that this has never been properly recognised—the selection of the different varieties and their cultivation—and I think the time has come when it is of the greatest importance, seeing that the flax areas are dwindling away very fast, that something should be done in this direction. I have here a few varieties of flax which I have tested [Samples handed in], and it will be seen with regard to these samples that, although grown on the same land under the same conditions, there is a great difference in the fibre. This one, for instance, gives a good deal of fibre, but the fibre is very weak. This, on the other hand, is a much finer fibre. You will also notice there is a great difference in the colour. Yet all these varieties were grown side by side, and stripped exactly in the same way. You can there see two varieties of flax grown upon the same ground within a few feet of each other, and one is a short bright fibre while the other is a strong elastic fibre, almost as strong as silk. This one here is affected with a kind of disease, which affects the colour of the fibre and makes it absolutely worthless from a miller's point of view. When I was at the Government Biological Department this morning I asked the Government Biologist to put it under the microscope and see if he could determine what it was that affected the leaf. Unfortunately the Biologist was absent. It is a very strong variety. Since the spring of 1903 it has made over 6 ft. in growth, while others on the same plot of land have only grown 3 ft. or 4 ft. That is another matter which requires study—the growth of the different varieties. This can be seen very plainly on the Levin State Farm. There are several varieties there which have been planted since 1903, which have grown up to 4 ft., 4 ft. 6 in., and in some cases 5 ft. There are others again which have only grown from 2 ft. 6 in. to 3 ft. And those which have not grown to such a height have multiplied tenfold, and are some of the very best varieties that I have seen. Although they have not grown so tall, they have increased fully from 200 to 300 per cent. That is a thing which requires very careful observation and study—that is to say, a flax which will within a given time grow the best fibre, taking into account the length and strength and amount of waste matter in it, and this can only be done through carefully

studying the plant in its growth. This [indicating sample] I pronounce as being one of the best fibres grown—not by any means the finest, but one of the strongest in the collection at Levin. I took this from the Levin State Farm in 1903 and planted it in my garden amongst these other varieties. It is not a very vigorous grower, but it grows fairly quickly; the fibres are peculiarly well defined and of a fine grade throughout, and very strong, bright, and elastic. This [indicating sample] also is a flax grown at Levin—a very beautiful variety, easily stripped, very little vegetation, and with an extremely fine fibre. I may say that I brought from Levin last week about ten or twelve different varieties with me, and, being in the Biological Department, I thought it would be a good idea to get them under the microscope and see what a microscopic test would bring forth; and it agreed in every particular—to my mind, in a most extraordinary degree—in bearing out the conclusions I had come to when testing the samples roughly. On looking down at the end of a section of leaf through the microscope the formation of the fibre and the leaf can be easily seen, and it is easily determined by the microscope whether the flax is of any use for milling purposes. In looking at the sections of the leaf in some cases it is most remarkable to see the amount of waste there is. There may be practically no fibre at all, although these may be the leaves usually taken by the millers. They may have practically no fibre, and the filaments of the fibre are so weak and the walls of the fibre are so weak that it is impossible they can get a strong fibre fit for milling purposes. Again, with regard to others of the varieties submitted and examined under the microscope—some of the very finest—it was extraordinary to see the strength of the fibre. Although the fibre was small, the walls and the filaments were all well defined. The walls of the fibre were clear and well defined, indicating the strength of the fibre. It is rather hard for me to explain what I mean without the section of the plant under the microscope. Looking at the section of the leaf under the microscope it showed exactly the formation of the fibre. The fibre is made up of a variety of minute cells—egg-like cells—of an even size, and the amount of vegetation in comparison to the fibre is small—that is, in a strong variety. In a coarse variety such as the ordinary variety milled the walls of the fibre are very large, the filaments of the fibre are thin and not well defined, and the vegetation is altogether too great—the amount of waste is altogether too great in comparison to the size of the fibre. That, to my mind, Mr. Chairman, is a strong argument in favour of the selection and cultivation scientifically of the best varieties. The microscope bears me out in every particular. To what I have suggested in a rough way the microscope, to put it short, says Yes. The microscope bears me out exactly in the tests I have made in my own rough way. As a matter of fact, I had not seen a section of a leaf under the microscope before, but it struck me as being a good idea and a good way of having the thing tested while I was at the Department; and, although I was greatly surprised, I may say I was more than pleased at seeing the examination under the microscope fully bear me out in every particular. It naturally made me feel more confident that the selection and cultivation of these different varieties would be necessary if we are to keep and improve the flax industry of this colony. I have never heard of any serious attempt being made to look into this matter of the values of the different varieties, seeing the importance of the industry. Although, of course, many of us know that there are these different varieties, many millers who have been for the past quarter of a century in business simply do not recognise anything in the different varieties at all. They may know that there are two or three different kinds of flax, but if you told them that there are fifteen, twenty, thirty, or as many as fifty different varieties they would simply laugh at you. But such is the case. I can prove clearly and absolutely that such is the case—that there are very many different varieties, and that each variety has its own specific value. The flax industry, to my mind, is now only in its infancy, and it is only through scientific selection and cultivation and manipulation of the plant that we shall get the flax of the highest and best value. Of course, in the collection of the different varieties, particularly in the North Island, a knowledge of the Maori language is absolutely indispensable, because, using the flax as they have done, and being people of keen observation, they know many of the different varieties. They will know the best varieties in their own locality. So a knowledge of the Maori language will be almost indispensable in making a collection such as I suggest. A very small sum of money would, to my mind, be sufficient to make a collection such as I suggest and have it planted out into the different Government farms. A sum of perhaps £400, £500, or £600 would be sufficient. It would be very hard to give a correct estimate, seeing that the person making the collection would have to go into all the holes and corners of the country, so to speak—to inaccessible places, where the flax would have to be carried out, and so on. So that it is very hard to form anything like an approximate estimate of the sum which would be required; but I should say between £500 and £600 would be ample—probably more than ample—to make such a collection and have it planted out in the different Government farms of the country. Then, it will be seen what influences climatic changes have on the leaf and the fibre. That, to my mind, will have a great effect on the leaf of the plant and on the durability of the fibre. The Natives themselves have told me that in the early days—I am speaking now of twenty-five years ago—there were varieties of flax which were taken from the interior which there only grew to an extent of 4 ft. or 5 ft., but which was a good fibre variety. This variety of flax was taken by them to the Wanganui River and grown on the alluvial lands, and it grew there to a height of from 10 ft. to 12 ft. That is a case of the same variety improving under different climatic conditions and on different soil. These are matters which want looking closely into, and it is only by close attention and observation by a properly qualified person that the difference caused by changes of climate and soil will be realised. I am thoroughly convinced that there will be a marked difference in the leaf, both in the quantity and quality of the fibre, in different soils. That is my reason for asking that the plants be planted in all the Government farms north and south. It can then be seen, after testing them when they come to maturity, which locality, which soils, and which climate suits the particular variety best. Some varieties will, of course, do better in a colder climate, while others will be better in a milder or warmer climate, as the case may be. As a case in point, I may say that some of these varieties which I took from

Levin to my place north of Wanganui showed a great difference in the different soil and climate. At my place it is a very dry soil, although not a very dry climate, and some of the plants which at Levin grew only 4 ft. or 5 ft., and in some cases only 2 ft. or 3 ft. 6 in., grew at my place in the Wanganui district to a height of over 6 ft. I would urge this as an argument in favour of my contention that it would more than pay the Department and more than pay the country to have such a collection as I have suggested made and planted carefully; and it is only through doing this that we shall be able to ascertain which are the best varieties and which varieties suit the different localities. I think myself that if something is not done and done very shortly we shall lose the best of the flax industry. Taking the present method of cutting the flax, the flax without cultivation in another quarter of a century will be a thing of the past, and we shall lose, to my mind, one of our best industries, and an industry which can be so easily improved. That being the case, and the industry having reached to such proportions as it has, I think we should make some endeavour at once to collect and thoroughly test all the varieties which are grown. I do not know that there is anything more I have to say.

5. *Hon. Mr. Duncan.*] You have mentioned an instance of some flax which was brought from the back country and which was replanted on different soil under different climatic conditions, and which then grew to a much greater height. Did it maintain its good quality otherwise?—Yes. They have at Levin that same variety. It retains its good qualities. It has a very white elastic fibre.

6. What is the average length of fibre in this quality [indicating sample]?—That is a cutting from a leaf which is not fully matured. There is one thing I should like to add to my evidence. Some flax-leaves which grow to a great height are not so valuable from a miller's point of view as smaller ones of a different variety, because there may be too much butt—where the flax leaves the root to where it opens out. There is too much waste if there is too much butt. Some varieties of flax grow to a great length before they start to branch out, while there are many varieties which start to spread out almost after leaving the root, and this is the variety which will be most profitable to the millers. I may say that there is also a table variety of flax, which is a native of Taupo, and which is often cooked and eaten by the Natives along with their other food.

7. *Mr. Bollard.*] I would like a little more information about the collection of varieties. You say you find a plant has a fibre of a particular quality in a certain locality, and that when you transplant that plant into richer soil, instead of getting, say, a 6 ft. leaf as formerly you get a leaf up to 9 ft. in length. Do you say that the fibre would be as good in the plant which has been transplanted?—Yes. A flax-plant transplanted and properly grown and cultivated has a much better fibre than it has in its wild state.

8. Then, I understand if you find flax of first-class fibre in a natural state, and you transplant it into very different soil where it grows, say, 9 ft. instead of 5 ft. or 6 ft., the quality of the fibre is not deteriorated?—No; my experience is that it is rather the reverse.

9. I suppose there would be about 12 in. or 18 in. at the bottom of the leaf which would not be equal to the other portion. I refer to the part at the root end?—No; that is what is called the "butt." That would not be equal to the remainder of the leaf under our present method of stripping, because it is almost impossible to thoroughly strip the leaf with the stripper now in use without staining the fibre.

10. You are satisfied, then, that if a first-rate fibre plant is removed to a district where it grows longer and more luxuriantly, the fibre is not deteriorated in any way?—I think the reverse would be the case.

11. That is a very important point?—It is.

12. You cannot go wrong by putting it into better soil?—No. I have ten or twelve different varieties at home, and some of them have been in seven or eight years—some of the very best varieties—and they have improved rather than deteriorated.

13. Then, if you take flax from swampy country and transplant it into drier soil it will improve?—I think so, undoubtedly, so long as the soil is not too dry—so long as the change is not too extreme.

SIR,—

Royal Oak Hotel, Wellington, 21st October, 1905.

There is a matter I quite forgot to mention to-day in giving my evidence—that is, should the Government decide to make such a collection as I suggest, that a report (complete and full) be prepared upon all the flax areas in both Islands, showing the approximate area under flax, condition of the flax, &c. This, I consider, valuable information for the Department of Agriculture.

Yours, &c.,

The Chairman, Agricultural, Pastoral, and Stock Committee.

G. MCGREGOR.

THURSDAY, 26TH OCTOBER, 1905.

CHARLES J. FULTON, examined. (No. 20.)

1. *The Chairman.*] What are you?—Chief Fibre Expert for the colony.

2. Do you wish to make a statement?—Yes. My experience in this industry extends practically over the whole period of my life, and I am prepared to speak on the subject from the varying natural growth of the flax down through every process of preparation of its fibre for, and ultimate results by, certain wares manufactured from it. Being the son of a farmer who was also a flax-miller, I claim to have a considerable knowledge of both rope and binder-twine. There are few, if any, workings in connection with flax-milling or agricultural farming that I have not performed my part in mastery of, as the two businesses were worked conjointly, and I am prepared at any time to again perform any similar task if necessary. In speaking of this industry, I would respectfully call your Committee's attention to the many years New Zealand flax was

looked upon as a nuisance and a cumberer of the earth. Through lack of knowledge and due consideration of its value, millions of pounds sterling have been lost to this colony. Proof of this may be furnished by the revenue derived from the exportation of its fibre during the last ten years, and especially since the passing of "The Flax Grading and Export Act, 1901." Had a similar Act been passed twenty years ago, I have no doubt the results shown to-day would have been very different. I would strongly urge that the present Government go still further in pursuance of its good work by not only retaining its flax areas and those suitable for the growing and propagation of the plant, but by acquiring more blocks of country. While it is well to know that good results may be obtained by cultivation and transplanting, the question is frequently asked and doubt expressed as to whether our flax can be grown from the seed. My reply to such is "Yes." However, to be successful in this requires study and care. The better way is to prepare, say, one-eighth of an acre with finely worked top soil of about 5 in., leaving a firm subsoil. The seed should be gathered in summer; in the autumn, the seed-bed being ready, the seed, after soaking for a few hours to assist germination, should be planted in drills about an inch from the surface, covered, and kept well irrigated. In the spring it may be transplanted over suitably prepared areas. It may be heard on all sides that there are a great many varieties of flax, and want of knowledge expressed as to which are the most profitable and best varieties to cultivate. In reply to this I would say, while admitting there are a great many so-called varieties, there are in reality only a very few, some of these being freaks of nature as may be seen in animal life. The variance very largely depends upon where grown, the nature of the country, and climatic conditions. A person who has studied the plant thoroughly can at a glance tell which is good or bad leaf, and on close examination be absolutely certain of its quality. There is a great difference in both quantity and quality of fibre from the leaf of different areas, and to be successful in milling a person has to apply varying methods, mechanically and otherwise, accordingly, in preparation of the fibre. There is an opinion among some millers that all there is of importance in milling is to understand stripper-keeping. Such is most absurd. On this matter I would refer you to my reports in the Department's Annuals of the past four years. While granting that the subsequent treatment of the fibre depends upon the stripping, and allowing that process to be performed particularly well, yet if the other processes be performed badly the fibre may be rendered practically useless for any wares of marked value. It is watchful, careful supervision, having the right work done at the right time in detail throughout the entire process that results satisfactorily to all concerned and in the welfare of the industry. A great evil attending milling, and which may account for a large amount of poor quality, is that of having the work performed by contract—viz., so much per ton. My experience has been that better results were obtained where employees were on weekly or daily wage. One of the witnesses (Mr. Mitchell), while giving evidence on the importance of this industry, remarked that there is no other which gives employment so advantageously to an unskilled class, but while admitting that this may be true in part, it is somewhat misleading. Those millers who have made and are making a thorough success of milling are careful to employ skilled labour, as there is a great knack or art in every process of the workings which tends to beneficial results. It is of the greatest necessity that instructors should be appointed to visit the millers, and instruct them by showing cause and effect, also where money is being lost which should be gained. No doubt difficulty may be met with in getting suitable men for this work, but I have good reason to think there are not more than twenty millers in this colony who have a thorough knowledge in detail of milling, or of doing justice to our valuable fibre. There is a further need of instructors, for owing to the success of the industry since Government grading was instituted, excessive royalties have been and continue to be asked by owners of the raw material, whereby a miller's only chance of success is to produce a good article. The royalties which have been asked I consider prohibitive. This may be accounted for by inexperienced men entering into competition with practical millers for the leaf after working out for themselves fortunes on paper, which could not be realised. This they, unfortunately, find out when too late. I believe I am correct in saying that with all the high prices ruling, the millers of six years ago, with third grade at £16 per ton as against £27 per ton to-day, were making more money, owing to present excessive royalties and high rate of wages. I am not aware of any industry in which is paid such a high rate of wages. During the past year, roughly speaking, there were about 360 mills working in the colony, and the revenue derived from the produce was about three-quarters of a million. These mills, apart from railway and shipping, must have given employment to at least five or six thousand persons, who would receive about two-thirds of the total revenue in wages. At many of these mills boys were receiving from 6s. to 9s. per day, while men engaged in cutting, washing, fielding, scutching, and pressing would average per week equal to about from £3 to £5, stripper-keepers from £3 to £6, and teamsters accordingly. In defence of the grading system and staff, I would point out that with very few exceptions, if any, the work of the Graders has not been challenged by manufacturers. In support of my statements I would ask, if our grading be incorrect, why have the prices ruled higher all along according to our higher grades? For instance, "superior" sells at about £34 in New Zealand; "fine," £30; "good fair," £27; "fair," £23 to £25; "common," anything below that. Severe comments have been made and reflections cast by some of the witnesses against some of the Graders which are of a derogatory nature. One of the witnesses, Mr. Simpson, chairman of the Manawatu Millers' Association, made certain statements which, by production of duplicate reports of those received by him from Graders, were conclusively proved to be misleading. He also asked that a manufacturer be engaged to educate the Graders. He evidently is not aware that one of our Graders served his apprenticeship in the Belfast Ropery, and this officer admits that he had almost all to learn in the work of grading after his coming to New Zealand (I mean in regard to New Zealand fibre). I may say without fear or favour that if an outsider were engaged who is not acquainted with our flax, and the technicalities in the preparation of its fibre, its variation and its true values, I think the present staff should all resign. However, I want proof that I am

ignorant before I submit to other judgment. I wish to refer to the services of the Auckland Grader (who is the ropemaker and spinner already referred to), and to whom one of the witnesses (Mr. Frost) referred, suggesting that it would be in the best interests of the industry if he were transferred from Auckland. I consider this is a matter in which I, as chief of the staff, am most competent to judge, and, as I make periodical visits of supervision to the several grading-ports, I, in justice to the Grader for that port, beg to state that, although he has a very difficult work there to perform, he has carried out his duties admirably, in full justice and without favour. If he had not given full satisfaction, in justice to myself and the Department, I feel safe in saying that he would not have been where he is to-day. I have every reason to consider him above suspicion of assisting any one person more than another. Another witness (Mr. H. Seifert), in making assertions regarding the grading, which appealed to me as being of a somewhat derogatory nature, perhaps was not clearly understood by your Committee. I think he stated that formerly he used to sell his fibre as "fine" quality. I would point out that any grades formerly known were not considered to any marked extent by me when the work was undertaken by the Government and according to the Flax Grading and Export Act. I created the system and grades which were submitted by the Department to and approved of, with one exception, by the Wellington Chamber of Commerce and Manawatu or Foxton Millers' Association. The exception which I much regretted was that the aggregate points should not be inserted in the certificate. Mr. H. Seifert complains that he has not been able to reach his former grade according to the southern Graders. I think he admitted in his statement that he had three or four mills working in Southland during the past two years, one of which was under his own direct management, and the product from which—a considerable amount—was graded by myself, and occasionally reached third grade until the unfortunate difference of only £1 per ton in price as between third and fourth grade; then the quality from that mill receded. On the other hand, another mill under other management, the produce from which was branded "WLS," reached during my experience, so far as I can remember, on an average from seventy-eight to eighty-one points, and I have Mr. Seifert's own words that it was this product that Mr. Passmore bought as "fine," and shipped to Auckland where "fine" was not being produced, and I am sorry to state that, so far as I am aware, it is not being produced from the mills there yet. You will notice that the difference between eighty-one or eighty-two points is very close to "fine" quality, which is reached at eighty-five. This information I trust will place the matter in a clearer light. I have visited Mr. Seifert's mill, which was under his direct management, with a view to improving matters, and I know exactly how the operations were conducted. I have visited many mills in the interests of the millers and the industry. Many millers have been very grateful for my instruction, while others were brimming over with knowledge and resented any advice. There are millers to-day who five years ago knew practically nothing about the business, who expressed their want of knowledge, received instruction, and acted accordingly, and are now at the top of the tree, and amongst the most successful millers. I say the industry is hungering for instructors. A witness (Mr. Gardner) made several remarks which are quite unnecessary for me to comment upon, except that I would refer him back to my reports on his fibre when I commenced my duties in the Government service, and recall to his memory the outcome of his visits on those occasions to the grading-stores. As to his, or the Millers' Association's, not knowing the qualifications of the Graders who may be appointed, that is a matter which can safely be left to the Department. I would call your attention to the fact that of the number of miller witnesses who have given evidence only one produces fine-quality fibre—namely, Mr. Boyes, and I think he spoke all in favour of the Graders and grading. Why were there not more of the high-grade producers to give evidence? There is only one conclusion and reply: They are apparently satisfied. Several suggestions were made that grading should be performed by sample bales. Such is quite impracticable. To work on these lines would require no less than from sixteen to twenty bales in each grading-store, which would require to be replaced probably every week or fortnight. No thoroughly practical man would offer such a suggestion. An ultimate result or aggregate may be reached in at least five different ways—for instance, in "fine." The following tables show bales with similar minimum aggregates by different causes:—

Stripping and Washing.	Colour.	Scutching.	Strong.	Finish.	Total.
24	22	18	17	4	85
25	21	18	17	4	85
26	22	16	17	4	85
24	23	17	17	4	85
25	22	17	17	4	85
"Good Fair."					
23	19	15	15	3	75
22	19	16	15	3	75
21	20	16	15	3	75
23	18	16	15	3	75
24	18	15	15	3	75

Assuming that such were practicable, storage-space could not be provided. One witness suggested that there was no standard to work by, and Graders had to carry it in their heads. May I ask how does any competent, practical person carry his knowledge but in his head? There is only one way to grade fibre, and that is by points. Graders being practical men know what has been, can be, and is being produced. They know the full relative values, and grade accordingly. It has been stated that the Graders were appointed and put in charge of a grading-port before being educated to their work. Every Grader on appointment serves a term in Wellington so that

uniformity may exist. Not only so, but as occasion offers two or three Graders meet in conference at the several ports during each year. A witness, Mr. Reich, stated that sample bales should be at hand in case of a Grader "swithering." I say, sir, there is no "swithering" in the business, for if a line is tricky the Grader opens a greater percentage until he is satisfied his judgment is correct. This is where the producer of a consistently good article saves money. As confidence is gained a smaller percentage is required for examination, and consequently his fibre costs less in grading. A witness, Mr. A. Seifert, who produces a consistently creditable article, as a miller, stated that if he saw his own fibre he could tell what it would grade to within a point or two. If so, how much more accurate should an expert be who makes it his continual study! The assertion that a bale examined in one store if transferred to another would not receive the same number of points is quite incorrect, provided the bale reopened is in a similar condition to when first examined. The whole trouble in grading and milling originates from two wants—first, want of aggregate points being shown in the certificate for each parcel as graded. Every point bears its own value, and why should the producer of eighty-three points sell for the same price as the one with 75-point parcels? Such is not only an injustice to the miller of the better parcel, but on opening the two the manufacturer would naturally say the person who graded and placed these two in the same grade must be a lunatic, and with good reason, too. The second want is that of instructors to visit the mills and assist the unfortunate. There are good and competent men on the grading staff, and I trust that their services will be duly recognised. I can assure you that it is a difficult task to get competent men for this work. It is a work in which there is neither smell nor taste to guide them, but it is a matter of practical knowledge and sound judgment. There is a further want in connection with the welfare of the industry, and that is the need for an expert being sent to the large manufacturing centres into which our product is exported. We require to be brought into closer touch with the manufacturers, to encourage them to contract with New Zealand exporters direct, to do away with the oversea middlemen, educate the manufacturers in detail as to the true values of our fibre when well prepared, and find out what higher uses it may be put to if properly prepared. Should we by this means be able to induce millers to improve their product, if only to the extent of £1 per ton, I ask you to consider the extra revenue to this colony; but I am convinced that we may increase it to from £5 to £10 per ton at least, even with present crude machinery and appliances. Some time ago a firm of brokers in America, who claim to buy largely, issued a circular in terms that were not complimentary regarding our flax industry, and who, on being asked to learn from the manufacturers which of certain parcels under the several millers' brands were most suitable for their needs, gave, as you may see by the letter here produced, the following reply: "As we have so far escaped any advance claims, we have not asked consumers their preference as to marks, but would prefer that they do not learn to discriminate in this regard." I will call your attention further to comments by an Australian firm which buys large quantities of New Zealand fibre of best quality, and is fairly conversant with our methods of grading, and the relative values of our fibre, and that by the evidence here shown buys according to points. "We have recently had placed before us several lots of hemp graded 'fine' and 'good fair,' standing eighty points. We would say that on the whole we are well pleased with the grading system. It has led to our being more certain of the article we buy. We heartily congratulate you on what is being done in the interest of the manufacturers, as now we really have a standard upon which we can safely venture to buy, whereas before it was quite an open question whether fibre was 'good fair' or 'fair,' being just as the seller might call it. Now, however, we can thoroughly rely upon the grading, and hope that no stone will be left unturned in your Department to see that the efficiency of the work is maintained." It is not unusual for millers to consider manufacturers as the consumers of our fibre. This is only true in part. The real consumers are those who use the manufactured wares, therefore it is necessary for us to produce an article that will give the utmost satisfaction. The following table shows the exports of fibre and the revenue derived thereby for the last ten years, exclusive of tow, rope, and binder-twine exported, which was very considerable:—

Year.	Weight. Tons.	Value. £	Year.	Weight. Tons.	Value. £
1896 ...	2,457	27,508	1901 ...	12,927	251,134
1897 ...	2,945	32,985	1902 ...	12,230	268,320
1898 ...	2,389	26,254	1903 ...	22,300	575,153
1899 ...	6,600	103,307	1904 ...	24,761	659,064
1900 ...	13,251	266,702	1905 ...	28,209	730,803

3. Is that up to date?—Yes, we have gone from £27,000 up to £730,800; added to this should have been—and it is unfortunately omitted—the revenue derived from the tow, the waste product from the main fibre, and added to that also is a large quantity of binder-twine manufactured in the colony and exported during last year—two or three hundred tons.

4. *Mr. Bollard.*] In your statement, Mr. Fulton, you infer that the grading and other assistance given by the Government for the production of flax was the cause of such a large output compared with some years ago: do you mean that as the cause of the increase in the production?—Yes, I undoubtedly do.

5. Is there not a great shortage in the last few years in the fibre in the Old Country from other countries?—That is a matter that has been argued that it was not so, although it was reported so.

6. Do you not know there is a great shortage in the Home markets of millers?—Yes, according to reports. My contention is this: that the Government stepped in in the nick of time when there was a demand, and we produced the article, and we assured the buyers of what they were getting by the grading system, and it had a tendency to make the millers of the shoddy goods

manufacture a reasonable article, and gradually the buyer became aware that our stuff was better than others and more worthy of consideration.

7. I do not wish to say anything against the Government in appointing Graders and doing all they can to encourage the industry, but I cannot understand you when you say that it was wholly due to that?—I think the position there explains it. If there was a demand for fibre at all—and there was a demand—the whole of the stuff was shipped holus-bolus, and the millers of a good article had no advantage; the millers of the good article were in the minority, and the manufacturers condemned the product in consequence; I was one of the sufferers in that respect.

8. The shortage of good fibre had to do with the rise in price?—It has all to do with our coming to light in the business at all. There was one chance, and that is where we derived the benefit, by the Government stepping in and taking control. They stepped in on a rising market, and it has gone on rising ever since.

9. One of the causes of the rise in price of flax is the shortage of other fibre. I do not say the sole cause, and I do not wish to undervalue what the Government are doing, but it is not wholly due to the action of the Government that the price is what it is at the present time?—I think it is. I am fully convinced on that point that it is. At the most we should have had two years' run if the merchants and millers had been left to themselves.

10. You spoke about the revenue from flax being three-quarters of a million—do you mean that?—Revenue to this colony.

11. What is your definition of "revenue"—does that go into the Consolidated Fund?—I hardly understand.

12. What do you call "revenue"?—That which is derived from our product in value.

13. Would you call the amount receivable, for instance, in the year—would you call that "revenue"?—It would be to the colony.

14. I should look upon it as an increase of exports?—Yes, but then you get value for your exports.

15. *Mr. Hogg.*] Do you think the present system of grading is advantageous, or could it be improved?—Very much.

16. Do you believe in the system of grading by points?—I do absolute'y, without a doubt.

17. You prefer having the flax divided simply into three or four classes, such as first class and second class?—That is so, the grading terms used should be there just for cabling purposes.

18. Then, you are not of opinion that the grading system might be improved by having flax so classified into three or four distinct classes instead of, it might be, into different grading points?—No. I think the difference of five points only is so very marked that it is an injustice to the producer and an injustice to the Grader to put them into the same grade, as every point has its own value, especially when it gets up to seventy points and over.

19. Is there no danger of the points awarded according to quality differing according to the local way the flax is graded by the different Graders, say, a Grader at the Bluff or Invercargill, and another at Wellington and Auckland—do you think you would be able to establish uniformity?—That is easily done. Each Grader goes through his school here before he goes to any other port, while I am continually on the travel from port to port seeing that any man does not lose caste in his work and so that uniformity may be maintained, and when opportunity offers in any slack time we meet in conference—two or three—as it is possible for us to do at the several ports.

20. Do you think inferior flax should be prohibited?—I think it should be prohibited, decidedly.

21. Supposing a man has a lot of what is termed "rubbish" on hand and still there is a market for it abroad, the quality of which the buyers know by the certificate, do you think the owner should be prevented from disposing of it to advantage?—I think so, decidedly.

22. *The Chairman.*] You object to an advantage outside the colony?—Yes, that is so. I contend that four-fifths of the rubbish produced is through bad workmanship and carelessness right throughout.

23. *Mr. Hogg.*] Assuming there are other people in the world who are prepared to purchase this and turn it to account, and are willing to give a good price for it, do you think the owner here should be prevented from exporting it?—Yes; I think it is the worst advertisement we can send out of the colony.

24. *Mr. Kirkbride.*] Mr. Fulton, in reply to Mr. Hogg in regard to the grading of flax, you said that the difference of five points was so marked that it was quite essential that this grading by points should be retained—you said that, I think?—That is right.

25. A difference of only five points?—Yes.

26. Why did the Department, seeing that you are of that opinion, have such a wide range in one grade as fifteen points between, I think, "fair" and "good fair"—from sixty to seventy-five?—That originated in rather an unfortunate way. The Department put all my proposals before the Wellington Chamber of Commerce. My idea was that the aggregate points of grading should be shown on the certificate, and it was submitted to the Wellington Chamber of Commerce, and also to the Flax-millers' Association at Foxton, and they agreed, with one exception, that the aggregate points should not be shown on the certificate. The millers did not get a grasp of the situation, I think. The whole thing was approved of with that exception.

27. That scale?—Yes, that scale, but points were not to be shown on the certificate—I think it was the outcome of that.

28. You say that the points should be shown on the certificate?—That is so.

29. Do you propose to alter the scale at all—that is, the range of points between the grades?—Yes, I do.

30. What do you propose now, say, between "fair" and "good fair"?—I would alter all the grading pretty well to some slight extent—that is, if the points are not going to be shown on the certificate. If the points are going to be shown on the certificate it does not matter, as the stuff

will be sold on its quality. I have a letter here from a big firm in Australia who thoroughly understand our system, and they buy on points—eighty points, which is only in the “good fair” grade. They have taken so much of one and so much of another, but the average must be eighty points, and when this system becomes general I think all our difficulty will cease.

31. We have had it on evidence from several millers that because of this wide range between “fair” and “good fair” they do not attempt to get up to, say, anything near seventy points—they keep down near sixty or sixty-four?—That is correct.

32. That is, they would lead us to believe that the grading led to rather an inferior article?—That is so—it will be done until the points are settled. If a man cannot reach that fairly easily by working with a little extra push—if he cannot reach the higher grade he will dwindle down and may become careless.

33. The Department proposes to reconstruct this scale of points?—Yes.

34. Can you give us what you propose?—My recommendation is that the grades be reconstructed to between eight points—anything below sixty-seven will be “common.”

35. *The Chairman.*] That is a reduction of seven on the present regulations?—That is so—sixty-seven to seventy-four, “fair”; others are seventy-five to eighty-two, “good fair”; eighty-three to ninety, “fine”; over ninety, “superior.” That is as near as I can remember it.

36. I have no doubt from the evidence we have that the scale will be very much better than the present one in existence. Is it a fact that at the present time most flax receives that grade, from sixty to seventy-four points—that most of the flax exported is of that quality?—The usual contract is “good fair”—seventy-five to eighty-four points.

37. Is the bulk of the flax we export classified as that?—It is contracted at that, and if a man does not reach that, that is where the £2 10s. per ton difference comes in. The difference in value at most is 10s.—as between seventy-three (“fair”) and seventy-five (“good fair”).

38. What is the next grade of flax?—“Common.”

39. Below sixty?—Yes, below sixty.

40. To what?—To anything below that—anything below fifty is usually condemned.

41. What kind is it you want to prohibit the export of—below sixty?—Below fifty.

42. You would call that what?—“Rejected.”

43. You have quite made up your mind that it would be better for the trade to prohibit the export of what you call “rejected”?—I am quite convinced of it.

44. Because we had it on evidence that certain lots of flax that were classed as “rejected” and came below fifty points were exported now and sold in Australia at £17 a ton, and the price they could have got in the local market was £9. If the millers were prevented from sending this out of the colony it would result in a considerable monetary loss to them?—If you prohibit the exportation of it you will find very little of it produced. Every man is subjected to loss as an ordinary farmer if his crops get swept off by a flood: he gets no compensation for that.

45. Do you think it would injure the New Zealand flax trade if this “rejected” quality had a proper trade-mark? It would be bought at its proper quality, and it would be known by the buyers in other countries that this was an inferior quality, and it would be bought as such?—It is not the manufacturer you have to consider, it is the poor unfortunate user of the stuff, who at first trial finds it results in disaster, and he says, “This is New Zealand fibre: I want no more.”

46. Then we come to this: that if this stuff is manufactured into rope in the colony, would you prohibit the export of that rope—the manufactured article?—Having it manufactured in this colony?

47. Yes?—I would have them prohibited from manufacturing it into rope or twine—it has no right to go into either—nothing below fifty points. There is nothing any good, to my mind, below seventy for those purposes.

48. We had it from one or two that it was because of the circumstances under which they worked that this “rejected” stuff was turned out. For instance, I remember one man saying that he was largely supplied by Maoris. Maoris supplied him with green flax from some swamp, or this green flax had laid in a wet place, and was, of course, awfully discoloured by the time it got to the miller, and that it was this very inferior stuff that was made. What would you do in that case—it is not because of the carelessness of the miller in that case?—So long as you allow that stuff to be exported the miller will buy—competition is so keen—he will say, “It is poor muck; we shall get something for it.” But if you prohibit that he will say to the Maoris, “Stop cutting,” and they will have the flax-cutters stopped.

49. Unless you are very careful, you are likely to injure the man in his work and in his mill, for, if I remember aright, one man said, “If I refused this quality that was sent in to me through it lying in the water, the Maoris would not send me any, and I am entirely dependent on the Maoris for the supply of green flax,” and he would have to shut up his mill—you see no difficulty there?—Of course, it is a big question; but I have seen the greedy customers in different parts of the colony, rather than let anybody else come in, get a quarter of an acre stacked up with what was at one time green leaf. They have worked for a week and they did not handle a quarter of it, and the result was that the balance was withered and sweated, and no man could make a good job of it, and rather than let his poor neighbour come in and give a reasonable price, he buys the lot to keep him out. It is a case of the survival of the fittest.

50. I suppose you would not for a moment suggest that the Government should prevent the exports of “locks” or inferior wool?—No, all “locks” are alike.

51. No, dirty locks are alike?—All sheep have the same process of making locks—it does not matter whether from New Zealand or anywhere else.

52. Comparison between wool and flax, to my mind, is a good one. They are both of them natural products. We have all kinds of wool, from “fine,” and we export everything down to “dirty locks,” and we have flax of different grades. It seems to me that we want to be very careful before we prohibit the export of even inferior quality if there is a better price in any other country. You do not see any difficulty?—No.

53. You absolutely advocate the prohibition of the class "rejected"?—Yes.

54. Is there much binder-twine exported from New Zealand?—Two or three hundred tons last year.

55. To Australia?—No, to America, I think.

56. There was one question raised by some witnesses: the suggestion was that there should be more than one grading-station at a port. They thought that the Graders might travel from one warehouse—say, one place set apart—to another, and that it was a very costly thing to cart all the flax to one shed or one building for grading purposes. Does the Department favour the setting-up or accepting those suggestions?—No, not by any means; it would be quite unworkable. There are very few stores that are suitable for our work, and we do not wish to cast any reflection upon owners of stores or dealers in fibre; but, at the same time, we should lose control of our own work by handling stuff in private stores, and we should require at least three times the staff. A man can go through 800 bales per day in a port now, but to do that quantity from store to store would take about a week, and Graders would suffer all sorts of inconveniences.

57. I do not think they suggested that the Graders should go to all grading-stores, but in such places as Auckland and Wellington there should be two or three places which would be more convenient to shipping if the Grader travelled?—We have very fine stores in Auckland, one close to the shipping, alongside the wharf, and J. J. Craig's store right alongside the railway, and the New Zealand Shipping Company are putting another store on, which will be really a store of three flats.

DEAR SIR,—

Mataura Paper-mill, Southland, 28th September, 1905.

I see from the newspapers that your Committee is inviting evidence *re* the flax industry. I subjoin the following items, in the hope that they may be of interest:—

I used to work in the Dundee Jute-mills, and, on coming to New Zealand a few years ago, I came in contact with flax-millers and saw some flax-mills. I was shocked at the waste of flax-tow, and on examining it expressed the opinion that it could be carded and spun by ordinary jute machinery, and made into serviceable twine. I persuaded a flax-miller friend to send a bale to friends of mine in Dundee, and I wrote to them asking them to get it tried through a jute system. Messrs. Urquhart, Lindsay, and Co. (Limited), Blackness Foundry, Dundee, carried the test through, and sent us samples of the result. They also, at my request, gave an estimate for a set of machines suitable for the work.

The twine was shown to twine-makers here, but they did not think it worth while to run the risk of trying it. The chief fault from their point of view was that the fibre was too much broken, thus diminishing the strength of the twine. My own objection to it is that it is not clean enough.

It is quite evident, however, that the people who carried through the test have taken little or no trouble with it. From my own knowledge of jute-mills I do not consider this surprising. I feel convinced that the tow could be carded and spun very cheaply, and made into clean, strong, even twine. It would not, of course, compare with the long-fibred twine, but for many purposes that is unnecessarily strong.

I am the engineer of the paper-mill here, and have no personal interest in the matter, further than a desire to see this frightful waste of excellent fibre stopped. If you consider the matter worth looking into I shall be pleased to send you a sample of the twine spun by Messrs. Urquhart and Lindsay, and also their estimate for a set of the necessary machinery to do it.

Yours, &c.,

JOHN PEDDIE.

Mr. Lawry, Chairman of the Agricultural and Pastoral Committee, Wellington.

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