To Mr. Hudson: I base my remarks on an average royalty of 15s. per ton. During the war royalties were as high as £3 per ton for flax. I am basing my remarks on pre-war conditions altogether. I admit that the results of growing flax might not be as good as dairying under

present conditions. The price of corn-sacks has risen greatly.

To Mr. Sidey: I think it is correct to say that the quality of the product is inferior compared with what it was some years ago. I think the Government should do something to induce millers to produce a better article. The greatest proportion of the flax produced in Southland is "low fair"; there is very little "good fair" being produced. I think more than an alteration in the matter of grading is involved. An expert going continuously around the flax-mills and trying to educate the millers in the production of a good article would help. Possibly this might be done: If the Government would for a year or two let the millers know that they would not allow them to export the lower grades it would be unprofitable to turn those grades out. As to grading, the trouble is there is a standard of grading, and the grader has to work on that standard. As to improving the standard, the point is this: If the Government were to say, "We won't allow you to export 'low fair." the result would probably be that in two or three years very little or none of that "low fair." would be produced. As a matter of fact, in London they do not want our "low-fair." or common hemp. It is a bit of a problem improving the quality, but I would suggest that for a year or two the export of "low fair." or common be prohibited. I certainly think the millers should get at least six months' or a year's notice. In most instances the quality of the product itself is all right. In this district, and I suppose in Canterbury also, linseed can be grown very well, and that is an industry which no doubt in time will come to the front.

To Mr. Craigie: There is some swamp land in Southland, but it is mostly swamp with bush. Flax will not grow where the water is stagnant; there must be good drainage. There are areas a bit far back that it would pay to deal with in that way. We export fully three-fourths of our local product—probably more. Towards the beginning of the war the price of jute was getting up to about £30 per ton, and the pre-war price of our flax was about from £25 to £30 per ton. I know they have cheaper labour in India, but as against that I would suggest putting

a small duty on imported sacks.

To the Chairman: The Government recently offered a bonus for improved machinery, but I do not know about it at the present time. I think the suggestion I have made is better than making a straight-out payment for an invention. There was a prohibition in the United States against the importation of New Zealand flax, but it has now been removed. The price is very low at present, and there is not much inducement to make shipments there; manila and Mexican hemp is going in. Only a few millers produce the finest quality of hemp; it is a suicidal policy not turning out the maximum quality. The millers' cost per ton for "good fair" is about £1. In the North Island it would be considerably less. It takes about nine tons of green flax to make a ton of fibre.

## G. W. Edwards, representing Southland Flax-millers' Association, examined.

Regarding the utilization of waste products in connection with New Zealand flax, I beg to offer the following suggestions: (I.) That an exhaustive analytical test be made to ascertain if alcohol can be obtained by distillation or otherwise, and in what quantity, from the waste vegetable refuse of flax (*Phormium tenax*) after it has passed through the ordinary mill stripper. I have every reason to believe from observations extending over twenty-five years of flax-milling that if alcohol can be obtained in commercial quantities and at a low cost, as I believe it can be, it might serve as a substitute for imported articles of a similar nature for use as fuel for combustion engines, &c. (2.) When I was flax-milling at New River Ferry, where there was practically no feed, I found that cattle ate the flax-refuse whilst in the fermentation stage greedily, and in preference to good swede turnips growing close by. I also found that the cattle throve and fattened upon it, and I did not lose any cattle through fibre-ball, such as would have been the case with manila hemp. I might also state that where the refuse was carted out on to the sand clover and other grass grew luxuriantly. From our own experience I should say that the waste products of flax, which are at present running down the streams, would, if carted out to stock, feed an average of fifty cattle at each flax-mill.

To Mr. Hudson: I have had actual personal experience of feeding cattle with the flux-refuse. I did it for two years before I sold out of the place; I reared calves on it up to two years. I bought calves, and they had nothing else to live on but the refuse from the stripper. There was a man who was milking cows for a dairy factory, and he used to take away the stuff occasionally, and his wife told me that every time the cows were fed on the refuse she got an extra tinful of milk. I have not heard of it being used elsewhere. I have heard a flax-grader say he knew that cattle were very fond of it. I have known of no bad effects so far as the cattle

were concerned.

To the Chairman: The cattle were fed on the refuse that comes from the stripper—the outside green of the flax.

To Mr. Sidey: The cattle generally eat it better after it starts fermentation. Fermentation starts on the third day.

## A. E. Bath, representing Southland Coach and Motor Union of Employers, examined.

Re local industry as pertaining to motor-body building in New Zealand, I have been appointed by the Southland Coach and Motor Union of Employers to represent them, and to tender you evidence on this subject. It is very discouraging to those engaged in the motor-car body and side-car body building industry in New Zealand, after spending a considerable amount of money