

(6.) I contend that auxiliary vessels, whether oil or steam is used, should be subject to regulations suitable to that class of ship, and not be required to conform to the laws made for full-power ships, because the auxiliaries are fully equipped, apart from their engines altogether.

FRANK HENDERSON, Mechanical Engineer, Auckland, examined.

170. *The Chairman.*] How long have you been in Auckland?—About four years.
171. And you came from?—England.
172. Did you serve your time in England as a mechanical engineer?—Yes, at William Collyer's, Manchester.
173. How long were you working there?—First I was an apprentice.
174. How many years were you an apprentice?—Five.
175. Did you work there afterwards?—Yes, for about two years afterwards.
176. And then you came on to New Zealand?—I was in England for some time practising as a consulting engineer, and made a particular study of gas- and oil-engines.
177. Did you carry on business on your own account or as an assistant to a firm?—On my own account.
178. For how many years?—Practically up to the time I left England.
179. What number of years were you at Home after leaving the firm?—About ten or eleven years.
180. Practising as a consulting engineer?—Yes.
181. Then you came to New Zealand?—On account of my health.
182. Did you take up your abode in Auckland?—First in the Waikato, where I took up a farm; but, having regained my health, I went on to Auckland. My wife and I both have private means, and it did not matter what we did. I have no business at the present time.
183. Have you been connected with any of the factories in Auckland?—Yes, with the Century Motor Power and Traction Company. I had a five years' engagement, but owing to a difference between the syndicate and the promoters concerned the business was determined.
184. How long ago?—July, 1898.
185. And you made an agreement for five years?—Yes.
186. Had you been employed in the construction of any machinery as consulting engineer in Auckland?—No, that was the first.
187. For how long did you act as mechanical engineer?—As near as I can say, about fifteen months.
188. During those fifteen months what was done in the factory?—We designed a ten-horse power marine engine, a four-horse power double-cylinder engine, a three-horse power marine engine, a fifteen-horse power gas-engine, a six-horse power gas- and oil-engine, a one-horse power marine engine. I think that is about all.
189. Did you also build all those engines you have spoken of?—We constructed them all from my designs.
190. And are they all now in use?—Yes. We built three of the ten-horse power marine type which were put out in my time, but they were only just finished when I cancelled my engagement.
191. Then it follows that you are conversant with the marine engine as well as the oil- and gas-engines?—Yes. I have designed every class of gas- and oil-engine.
192. Have the marine engines you turned out worked satisfactorily?—Yes. I may say very satisfactorily.
193. And the gas-engines?—Yes, they have been working ever since they were put in. There have been no complaints.
194. And the oil-engines?—They have done the same.
195. Have you not designed any marine steam-engines?—No, all oil- and gas-engines. While I do know something of steam-engines, yet I made a special study of gas- and oil-engines; and not only by reading, but by actual practice. I have an experimental shop, and always have had, for conducting experiments for my own special benefit and knowledge. That is in Auckland at the present time. I use it for my own amusement. I have three engines which are in constant use, all built by myself.
196. Have you ever constructed any steam-engines?—No.
197. Although you know all the mechanical parts and the principle on which they work?—Yes.
198. After leaving the company which you were employed by in Auckland, have you done anything since for the last nine months?—No, except conduct experiments.
199. In connection with the oil-engines?—Yes, entirely, and electrical machines.
200. Have you fitted up any vessels with the engines you have constructed?—Yes.
201. And put them in the vessels?—Yes.
202. Personally superintended the work?—Yes. I can give you the names of the ships. There is the "Norseman," Mr. Bluck's launch.
203. Is that a naphtha boat?—Naphtha or benzine. There is the "Lemuria," my own launch, and the "Speedwell," a trading boat.
204. What is the tonnage—the burden?—I suppose, about six tons.
205. Have you put engines into any of the trading schooners?—No.
206. Not in what we call sea-going vessels?—No. The trouble was that we had a very small plant, which was totally unsuitable for the class of work we were endeavouring to put out. For the same reason we did not get the two orders for engines for the Northern Steamship Company, for the "Waiomana."
207. A vessel of what size?—About 100 tons. We were asked by the Northern Steamship Company to give a quotation for two engines of thirty-five horse-power, and they gave us the specifica-