

The INSPECTOR of MACHINERY, CANTERBURY DISTRICT, to the ASSISTANT SECRETARY, Marine Department.

SIR,—

Christchurch, 5th April, 1890.

I have the honour to forward annual reports of boilers and machinery inspected by me during the financial year ending the 31st March, 1890.

The total number of inspections during the year is rather less than last year, although I have had more cases of bad boilers and dangerous machinery to deal with.

The revival of the flax-industry has caused an increase in the number of mills, and as they are often started by men of small capital the machinery is often of a makeshift character, and therefore requires more frequent inspection; and as the owners often fail to give notice of having started a mill, as required by the Inspection of Machinery Act, they may have been at work some time before the Inspector is aware of it.

The only fatal accident I have to report this year occurred at a flax-mill scutching-machine, but this machine has been very much improved since. By degrees I have got the mouthpiece so reduced in size of opening that it is hardly possible for a man to get his hand in, and there is no difficulty in feeding the fibre, as by the present arrangement of mouthpiece there is an incurrent of air which draws it in.

There is again an increase of traction-engines in my district, and I find they are sometimes used for ploughing, and are likely to be largely used for that purpose, and, as I stated in my last annual report, they are often in the hands of very incompetent men. The only way to prevent this would be to require the engine-drivers to hold a certificate of competency. This is in force in Victoria, although there is no general inspection of boilers in force there as yet.

The makers of traction-engines seldom make any provision for inspection, so in a few cases I have had a small door cut and properly fitted for that purpose.

The reduction of fees, provided same is paid within one month, has had a good effect, although there are still some owners who will not pay the fee until they are forced to do so; much trouble is thus caused, and much time wasted in writing these owners.

Should further information on any part of the report be required I shall be happy to supply the same.

I have, &c.,

The Secretary, Marine Department, Wellington.

GEORGE CROLL.

RETURN of BOILERS belonging to the GOVERNMENT INSPECTED by me during the Financial Year ended the 31st March, 1890.

For what and when used.	Amount of Fee if charged.
	£ s. d.
Used for cooking and pumping at the Sunnyside Lunatic Asylum, Christchurch...	2 0 0

RETURN of DEFECTS on the INSPECTION of BOILERS and FITTINGS in the CANTERBURY DISTRICT during the Financial Year ending the 31st March, 1890.

Description of Defects.	Dangerous.	Ordinary.	Total.
Crack in shell (caused by a fall in erection) ... ..	1	...	1
Crack in fire-box or furnace ... ..	2	...	2
Crown of fire-box down ... ..	1	...	1
Crack in neck of uptakes (vertical boilers) ... ..	1	1	2
Furnace injured from over-heating (Cornish) ... ..	2	1	3
Faulty design ... ..	1	...	1
Fitting defective ... ..	2	...	2
Laminated plate ... ..	...	1	1
Leakage in fire-box ... ..	...	1	1
Leakage on bottom (Cornish) ... ..	...	1	1
Longitudinal stay broken ... ..	1	...	1
Pressure-gauge incorrect ... ..	2	1	3
Patches on fire-box ... ..	...	7	7
Shell grooved, pitted, and wasted (train-engine) ... ..	1	...	1
Tubes wasted ... ..	3	7	10
Top tube-plate cracked (vertical boiler) ... ..	1	...	1
Vats wasted at top and stays ... ..	3	1	4
Wasted in shell from age and exposure ... ..	2	...	2
Wasted from damp foundations ... ..	...	4	4
Wasted from leakage at doors and joints ... ..	4	9	13
Total ... ..	27	34	61

Of the above boilers 27 have been repaired, 7 have been condemned, and the remainder are out of use or are working at a reduced pressure.