

HILL FOREST DESTRUCTION

A PIONEER'S OBSERVATIONS———RUINOUS FLOODS AND THEIR CAUSES

(By "Rakau.")

AN old resident of the Wellington Province, Mr. A. H. Gibson, writes to the Forest and Bird Protection Society describing the hills and forest on the eastern side of the Wellington harbour and the Rimutaka ranges as he saw it over fifty years ago.

"When I entered Port Nicholson," he says, "in January, 1879, with my father in the little s.s. 'Albion,' all the hills to the east, right up to the top of the saddle, and down the other side as far as Featherston, were covered in beech forest interspersed in a few hollows with rimu, cabbage-trees, nikau, etc. Right through the beech grew a species of moss, or light feathery fern, which in summer got very dry. I have been coming from the Akatarewa in the dry season with the packhorse used for carrying meat, bread and butter from the Upper Hutt to the farm, in the year 1885. I often used to see miles of the beech high on the opposite side of the Hutt Valley alight, and no one troubling, though a muster of settlers in the Hutt could have put it out if taken at the beginning. In this way the whole of the range to the east of the Hutt River was burnt out, and is now practically bare."

Mr. Gibson goes on to refer to erosion of land by rivers coming down in flood, in a few hours' rain. In former days such rivers as the

Hutt, the Manawatu, and the Wairau (in Marlborough) took three days to come to flood level and then three days to subside. The last fifty years of forest destruction on the ranges have changed all this. "I have seen the Manawatu sweep away acres of the most fertile soil in one year alone of flood, and I have stood near by after very heavy rains and witnessed the devastation caused by the Oroua flood waters pouring over the edge of the eroded banks into the Manawatu, while the latter river was engaged in attacking the banks from underneath, so that these destructive agencies were both above and below."

To these remarks it should be added that timber-milling, more than fire, cleared the western side of the Hutt Valley. Most fires were, of course, settlers' clearing-off burns, on third-class country.

The lesson should not be lost on local bodies. As surely as you cut away and burn away the forest on the headwaters of streams, on watersheds, and along the river banks, so surely shall the country suffer. The damage becomes more acute every year, and local bodies wrestle with protection works low down in the river's course—as in the case of the Manawatu—while nothing is done to remedy the trouble at its source.

SHAGS

(By. A. Landsborough Thomson.)

A useful illustration is given by the case of the Australian cormorants (*shags*), of various species, inhabiting certain swamps of the Murray River. A war of extermination was begun against these birds under the impression that they were spoiling the fishing. The result, as it proved, was that the fishing grew worse instead of better. It was then discovered that the birds fed largely upon crabs, eels, and other creatures which de-

stroyed the spawn and fry of desirable fishes. The cormorants were therefore a necessary part of the economy of nature even from the human utilitarian point of view; they were to be classed as beneficial to man in spite of any toll that they might themselves levy upon the aquatic harvest which they had contributed to keep in existence. Over and over again in his attempts to interfere with nature, man has been presented with lessons of this kind."