

close and come into contact with each other. Both troubles can be surmounted in this way: If wax is used for covering the scions the buds left at the base of the latter almost always grow. They break right through both raffia and wax and develop strong growth. Their union with the old wood is perfect. These branches grow out at an angle from the trunk, this being partly caused by the scion-growths above them. The higher shoots can be gradually removed and the basal ones left to make the tree. A proper spread is at once secured, and the butts of the branches do not collide with each other.

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## THE CATLINS DISTRICT MOSSBANKS.

### AN EXPERIMENT IN TREATMENT.

R. MCGILLIVRAY, Fields Inspector, Owaka.

In the Catlins district, South Otago, there are large tracts of country more or less covered with what is known as "mossbank." These mossbanks are mounds or heaps of partly decayed vegetable matter lying on the surface of the soil and varying in depth from 1 ft. to 10 ft. or more. The mounds appear to have been formed much in the same way as peat, and could only occur in a humid climate. The acidity of all mossbanks is very marked, but that in the region of the kamahi forest appears to have a greater degree of acidity than that found in the pine forest. Under all mossbanks is to be found a hard black pan at varying depths, and generally of undulating formation. This pan is quite impervious to moisture. Blackberry, spurrey, and sorrel thrive on mossbanks, and rhubarb likewise responds to a dressing of this material. Patches of mossbank in a field give it an unsightly appearance. In some cases a good crop of turnips or oats is to be seen with perhaps half a dozen bare mossbank patches, which detract very much from the appearance of the crop and are an annoyance to a careful farmer.

During last summer some experiments were conducted on a typical piece of mossbank near Owaka, on the property of Mr. Keith Ramsay, of Dunedin. The entire area was ploughed on the 8th and 9th September, 1915. Two swing ploughs were used, one turning the furrow, and a second following with mouldboard removed, so as to act as a subsoiler and pan-breaker. The pan was broken to a depth of 26 in., but in places it was too deeply seated to be reached. The field dried rapidly after this treatment.