THE PRODUCTS OF JOHN WILSON AND CO.'S WORKS AT WARKWORTH, NEAR AUCKLAND.

The straw first falls on to a travelling feed web which brings it up to the first pair of feed rolls, which are placed wide apart to easily receive the straw or sheaves, but partially compress it and pass it on to another set of feed rolls, which compress it as hard as it is possible; thus it is cut to regular length by the revolving knife wheel. The work is nearly automatic, the feeder's work being only about one quarter of that required with a single-roller machine not fitted with web feed. Two knife wheels are provided with this machine, so that one is always in the hands of the engine driver having the knifes sharpened, whilst the other is cutting—a stoppage of three minutes only being necessary to change the wheels. The riddles and elevator in the machine are much larger than usually used in chaffcutters. The bagging presses are actuated by a drive chain, which cannot slip, and are fitted with improved brakes which accurately gauge the quantity of chaff placed in each bag, so that all are pressed equally. The machine is mounted on very large and strong travelling wheels with springs, so that little vibration is passed on to the machine even when being hauled by a traction engine running at eight miles an hour. This machine has cut 52 tons in a day, and has cut as much as 7 tons in the hour. The small farmer's machine shown is a strong simple machine, capable of being worked by hand at a pinch, or by a horse gear, or by the same engine that drives the milking machine.

The firm do a large business in crushing machines for grain, and show a fine No. A4 Crusher well made and capable of doing a large amount of work.

Seed-cleaning machinery is the other speciality that Andrews & Beaven have made peculiarly their own. They make a very large series of machines for this purpose, suitable for merchants, seedsmen, seed growers, malsters and farmers but only have space to show one, the "Universal," one of their latest patents. In this they have striven to make a machine that is capable of treating all kinds of seeds and making a perfect sample The machine is fitted with two large exhaust fans for removing all dust and light impurities; a very accommodating feeding device which allows a wide range of seeds to be equally fed into the machine with regularity; a scalping riddle which removes all straws, string and material likely to impede the action of the other sieves. The six other sieves are arranged in two separate frames which, in working, balance one another so that there is an absence of vibration, and are further arranged so that once an impurity seed has been caught and separated from the good seed there is no chance for it to go back on to the sieves again; the six sieves allow the separations to be made with the least possible loss of good seed. Brushes working under the sieves keep the meshes of the sieves always clear, and do their full duty at all times. A very efficient hummeler, or polisher, is fitted to the machine; this is fitted with three separate kinds of attachments, which enable oats to be clipped, barley to be awned, fog to be shelled, or clover to be polished without there being the slightest chance of any damage to the seed. This machine, when fitted with sieves suitable to the particular seed being cleaned, will effectually clean all the principal grain and seeds grown in New Zealand and Australia, with the exception of hair grass and tares. For these cellular cylinders can be provided which, at a small extra cost will effectually deal with these impurities. The machine is one suitable for large farmers, Co-operative Farmers Associations, and merchants who have to handle a large number of different kinds of seeds.

As sole Agents in New Zealand for Messrs. Blackstone & Co. Messrs. Andrews & Beaven exhibit this firm's well-known oil engines. Their engines have now been in use three years in the colony, and on all hands are well spoken of Farmers like them because they are easy to understand and there are no electrical connections to trouble them; contractors like them because they are very economical in oil; shearers like them because they run very steadily and do not jar the hand, milking-machine owners like them because they are efficient and always to be depended upon; sawmillers like the great variation in speed the governor allows for.

As agents for Messrs Bamford & Sons, of Uttoxeter, this firm exhibit four machines for grinding and crushing all kinds of seed and grain These machines are very faithfully built, are heavy in spindles and bearings, and are well balanced so as to run very steadily at all speeds. The grinding discs are interchangeable and are each made with two cutting surfaces, so that when one cutting surface is worn, it can be turned round, and a new surface presented. The grinding is done in a series of cones approaching nearer to each other as their surface increases, the grain is broken up gradually, and as it becomes finer there is more surface to operate on it, the meal is thus kept cool and the power is little compared with the work done. These mills present many advantages over mill stones, and Bamford's grinders are now to be found in most oatmeal mills in New Zealand, as well as in produce merchants' stores, spice merchants', calf-meal makers', farmers' barns, etc. The exhibit is shown off to good advantage, being arranged on a series of platforms rising one above the other.

## Wilson's Patent Swingle-Tree Irons.

ALL farmers have experienced trouble through the irons on their swingle-trees becoming loose and falling off. This, of course, generally means a loss of time as the nearest place where the trees can be repaired may be a mile or so from where a farmer is working. Wilson's patent swingle-tree irons are said to be an improvement on the old order of things, inasmuch as they are very simple and easily adjustable, and can, by moving the centre iron along the tree, be made into an equalising bar at a short notice In event of a brake on the swingle-tree, Wilson's irons can in a few minutes be taken off and fixed to any suitable place roughly trimmed to shape with an axe. The irons are made of malleable cast iron, and are strong and light; and the maximum thickness of the metal is regulated so as to fall where the most strength is required. As Wilson's irons are extremely portable it is possible to carry an extra iron or so without any trouble. The irons are on view at Messrs. Baldwin & Rayward's stand in the Machinery Hall.

Our representative recently called upon Mr. Geo. Croft, organ builder, Auckland, who built the organ for the last Wellington Exhibition, and also for the Auckland Exhibition of 1899, the latter being now in regular use at the Choral Hall. At the factory, which is well equipped with machinery, a new large two-manual organ is building for St. Benedicts' Roman Catholic church, Auckland.

The quality of the material and the appearance of Mr Croft's workmanship bear strict comparison with the best English work. Our representative, who called, a few months back, upon some of the best English firms, gives this opinion with very great pleasure, and he further states that many English builders do not hesitate to get rid of a goodly number of their second-class instruments to colonial customers, even to the extent of supplying German material as English. The idea that organs with pneumatic action must of necessity be imported is quite fallacious, as Mr. Croft rarely builds an organ upon the old tracker system. Mr. Croft believes in employing the most proficient assistance upon which he can depend, and this, coupled with sound judgment and strict supervision on his part, will certainly bring to him and his assistants that support which the intelligent colonial free from the bias which often characterises new arrivals from the old world, so willingly gives and maintains.


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