

## REGISTERED LIST OF PATENTS FOR DRESSING NEW ZEALAND FLAX.

CLASS I., *Sub-Class A.*—JOHN HENRY NODING, of Christchurch.—(Dated 16th December, 1869.)

THE invention consists in suspending beaters from the circumference of a drum or lantern, in such a manner that they may swing freely, and so that on a rotary motion being imparted to the drum or lantern, the beaters may radiate from the axis of the drum or lantern. The drum or lantern is so arranged, that when it revolves the beaters either beat upon, just touch, or nearly touch a roller, or other bed of metal, or other suitable material over which the leaves of the *Phormium tenax* are fed, and a blast of air may be conveniently employed to prevent the beaten fibre from being drawn into the machinery; but the construction and arrangement of such rollers, bed, and blast, respectively, form no part of the said invention.

The beaters may be made of metal, or any other convenient material, or combination of materials, and may be of any convenient size, weight, or shape, and they may be suspended from the drum or lantern by springs, or wires, or in any other convenient manner.

NOTE.—This principle appears to be worthy of trial applied to scutching machines, it having been used in England with apparent good effect in dressing fibrous material.

CLASS I., *Sub-Class A.*—CHARLES JAMES POWNALL, of Wellington.—(Dated 8th July, 1869.)

*Object of Invention.*

To separate the fibre of the *Phormium tenax* and other similar plants from the gummy and resinous matters, so as to render the said fibre fit for manufacturing purposes.

The said invention consists of a mode or modes of mechanically scraping the outer and inner surfaces of the leaves of the *Phormium tenax*, and other similar fibrous vegetable substances, for the purpose of depriving them by one operation of their resinous and gummy matters.

CLASS I., *Sub-Class B.*—FRANZ SCHERFF, of Auckland.—(Dated 30th September, 1867.)

AN endless band, belt, or strap, is passed over two pulleys, sheaves or drums, one on each end of the machine. This endless band may be made of brass, zinc, iron, steel, or other metal, or canvass cloth, leather, gutta percha, or other material found suitable. It is supported at the middle by a meta or other strongly built bed or table over which it travels, as the sheaves or drums are gradually revolving by means of the ordinary mechanical combinations of eccentric motion, rods, levers, &c., known to engineers, and commonly used in self-feeding machinery. Above that portion of the endless band which is supported by the bed or table, one or more pairs of beaters are fixed and these are raised by means of cams fixed upon a revolving shaft or other suitable mechanism, so as to fall freely upon the material lying on the endless band. The beaters or stampers are in this instance shown as being made of wood, but they may be made partially or entirely of any other material.

The flax, either in its green state, or after having been subjected to boiling, steaming, or any other preparatory processes, is laid upon the endless band, passed underneath the beaters, and delivered dressed at the opposite end of the machine.

NOTE.—This process or modification of it appears adapted to washing the gum and colouring matter from the flax, after it has passed through the ordinary stripping machines.

CLASS I., *Sub-Class B.*—ABIEL GIFFORD HOWLAND, of Christchurch.—(Dated 22nd April, 1869.)

DESCRIPTION of an invention in mechanism, for the beating, stamping, or crushing iron, quartz, flax, or any other material, by means of a lever-spring hammer.

The commendatory features of this application are—

- 1st. Its simplicity.
- 2nd. The means of regulating the power to strike a light or heavy blow.
- 3rd. The greater or less speed at which the hammer can be driven at will.
- 4th. The small amount of power required.
- 5th. The unlikelihood of the hammer to get out of order or require repair.

The principle is that of a lever-spring hammer. The hammer working from a lever in the main post, driven by a cam or spiked wheel at the top of the post, the main-spring being fixed to an opposite post, and extending so as to rest upon the end of the lever hammer, with screws to regulate the force of the blow.

The hammer can be driven by hand at a speed of from one to one thousand strokes a minute, and by a most simple contrivance, namely, the regulating spring attached to the main-post under the hammer, with a force varying from a touch to one of immense weight.

CLASS I., *Sub-Class B.*—Messrs. PURCHAS and NINNIS, of Onehunga, Auckland.—(Dated 26th March, 1861.)

THIS invention consists of a method of clearing and separating the fibres of the *Phormium tenax* or New Zealand plants by mechanical means, aided by the action of water.

The principle adopted is that of percussing; the means used are beaters, hammers, beetles, or stampers, with or without springs, constructed either wholly of wood, or partly of wood and partly of iron, or other suitable materials, with plain or wrought surfaces, acting upon beds of wood or iron, or other suitable material, either plain or wrought, fixed or moveable, with or without springs, and the whole machinery worked by any kind of power. The raw material is put in, either fresh or after having been some days in water, and is worked either with or without water. When thoroughly cleaned, the prepared material is dried in any convenient manner, and is then ready for use. If wanted of still finer texture, it is subjected to further percussion in the dry state.