NEW ZEALAND. 7353

"THE PATENTS, DESIGNS, AND TRADE-MARKS ACT, 1889."

COMPLETE SPECIFICATION
FOR LETTERS PATENT.

No: _____
Date: _____

"Improvements in Windmills."

I John Marshall of Springston in the Provincial District of Canterbury and Colony of New Zealand. Mechanic

do hereby declare the nature of my invention for "Improvements in Windmills."

and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

This invention of improvements in windmills relates to the construction of the wheel and to the bearings in which the spindle or axle of said wheel works, the object being to lighten the said wheel and to enable it to work more freely and without

(1)

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any wear upon the said spindle or axle.

My improvements consist of (1) wires running through the sails and soldered thereto, thus making the said sails firm; also placing another ring in wheel or more as may be necessary for larger wheels.

The wires are jointed opposite the arms to enable the wheel to be taken to pieces when required for packing (2) fitting the windmill head with ball bearings in which the spindle or axle of the wheel works.

In order that my invention may be more easily understood I will now proceed to describe the same having reference to the annexed sheet of drawings wherein.

Fig 1 is a part front view of wheel.

Fig 2 is a part section of same.

Fig 3 is an enlarged view of one of the clips to which the arms of wheel are secured.

Fig 4 shows the method of joining the wires in order to be easily disconnected.

Fig 5 is an enlarged part section of head of windmill showing the ball bearings for spindle or axle.

Fig 6 is a section showing another form of ball bearing, having two rows of balls.

The rings A are secured to clips B which clip the arms or spokes C, the said arms or spokes are twisted as shown and the inner end of each arm is secured to the centre D fitted to the spindle or axle E. To the outer end of spindle

over axle adise F is secured, to which the inner ends of stays C are attached, the outer ends of said stays being secured to the clips on middle arm of wheel.

Two or more rows of wires H are run through each row of sails I, each wire being about one and a half inch from the respective edges of the sails, the wires and sails being soldered together.

These wires are pointed (as shown in Fig 4) opposite each armor spoke C to enable the wheel to be readily taken to pieces. J is the windmill head which has recesses at both ends in each of which I place a grooved ring a to receive balls b, two collars CC being secured to the spindle E opposite each said ring, thus forming ball bearings; a plate d is fixed over opening at each end of head J; e are leather rings, f is a piece of tube ing under collars. It will thus be seen that there will be no wear on the axle or on the windmill head that supports the bearings; moreover when the bearings are worn out they can be readily replaced by new ones.

The bearings may be arranged with double rows of balls (as shown in Fig 6) if desired.

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Having now particularly described and ascertained the nature of my said invention, and in what manner the same is to be performed, I declare that what I claim is:—

In windmills

The use and arrangement of two or more rows of wires attached to each row of sails I, each wire being jointed opposite each arm O, substantially as herein described and illustrated in the annexed drawings.

The use and arrangement of ball bearings with either single or double rows of balls within the windmill head J substantially as herein described and illustrated in Figs. 5 and 6 of the annexed drawings.

Dated this 1th day of November A.D., 1894

Signed: John Marshall

LARGE DRAWING

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NEW ZEALAND.

# THE PATENTS, DESIGNS, AND TRADE MARKS ACTS.

## REGISTRATION OF DESIGNS.

UNDER "The Patents, Designs, and Trade Marks Act, 1889," copyright in any new or original design not previously published in New Zealand may be secured for a term of five years.

### Application.

In order to obtain registration an application must be sent, with the prescribed fee and drawings or specimens of the design, to **The Registrar of Patents, &c., Wellington.**

The application should be in the form attached, and state—(1) the number of the class in which registration is desired, (2) the name and address of the person claiming to be the proprietor, and (3) the nature of the design, and whether it is applicable to the pattern, shape, or configuration. The form may be signed either by the applicant or his duly authorised agent.

### Drawings, Photographs, &c.

Three exactly similar drawings, photographs, or tracings, are required; but when the design is of a kind that can be pasted into a book, specimens may be furnished instead. To avoid delay in registration a single sketch may be sent with the application, but no certificate will be furnished until the prescribed number of drawings, photographs, or specimens is received.

### Fee.

The fee is 10s. and may either be paid to the Bank of New Zealand and the bank receipt sent to this office, or else be remitted by postal note or money-order.

### Marking Goods.

Before the delivery on sale of any article to which a registered design has been applied the proprietor of such design shall, if such article is included in any of the classes 1 to 12, cause each such article to be marked with the abbreviation "Rd." and the number appearing on the certificate of registration, and shall, if such article is included in the classes 13 or 14, cause such article to be marked with the abbreviation "Regd."

### Manufacture in New Zealand.

If a registered design is used in manufacture in any foreign country and is not used in this country within six months of its registration in this country the copyright in the design shall cease.

### Definition of Design.

"Design" means any design applicable to any article of manufacture, or to any substance, artificial or natural, or partly artificial and partly natural, whether the design is applicable for the pattern, or for the shape or configuration, or for the ornament thereof, or for any two or more of such purposes, and by whatever means it is applicable, whether by printing, painting, embroidering, weaving, sewing, modelling, casting, embossing, engraving, staining, or any other means whatever, manual, mechanical, or chemical, separate or combined, not being a design for a sculpture, or other thing within the protection of "The Sculpture Copyright Act, 1814" (54 George the Third, Chapter 56), or other Act in substitution thereof for the time being in force in New Zealand.

### Definition of Proprietor.

The author of any new or original design shall be considered the proprietor thereof, unless he executed the work on behalf of another person for a good or valuable consideration, in which case such person shall be considered the proprietor; and every person acquiring for a good or valuable consideration a new and original design, or the right to apply the same to any such article or substance as aforesaid, either exclusively of any other person or otherwise, and also every person on whom the property in such design or such right to the application thereof shall devolve, shall be considered the proprietor of the design in the respect in which the same may have been so acquired, and to that extent but not otherwise.

### Classification of Articles of Manufacture and Substance.

Classes.

1. Articles composed wholly or partly of metal, not included in Class 2.
2. Jewellery.
3. Articles composed wholly or partly of wood, bone, ivory, papier-mâché, or other solid substances, not included in other classes.
4. Articles composed wholly or partly of glass, earthenware, or porcelain, bricks, tiles, or cement.
5. Articles composed wholly or partly of paper (except hangings).
6. Articles composed wholly or partly of leather, including book-binding of all materials.
7. Paperhangings.
8. Carpets and rugs in all materials, floor-cloths, and oilcloths.
9. Lace, hosiery.
10. Millinery and wearing-apparel, including boots and shoes.
11. Ornamental needlework on muslin or other textile fabrics.
12. Goods not included in other classes.
13. Printed or woven designs on textile piece-goods.
14. Printed or woven designs on handkerchiefs and shawls.

**[Form of Application attached.**

# THE PATENTS, DESIGNS, AND TRADE MARKS ACTS.

## APPLICATION FOR REGISTRATION OF DESIGN.

You are hereby requested to register the accompanying design in Class No. _____ in the name of (1) _____ of _____ who claims to be the proprietor thereof.

(1) Here insert legibly the name, address, and description of the individual or firm.

Statement of the nature of the design: The design is for a (2) _____ applicable for the (3) _____ thereof.

(2) Here insert name of article design is for.

(3) Here insert pattern, shape, or configuration (as the case may be).

The prescribed fee of ten shillings is enclosed.

Signature: _____

Dated this _____ day of _____, 19 .

To the Registrar,
Patent Office, Wellington.

[5,000/9/1908—7447

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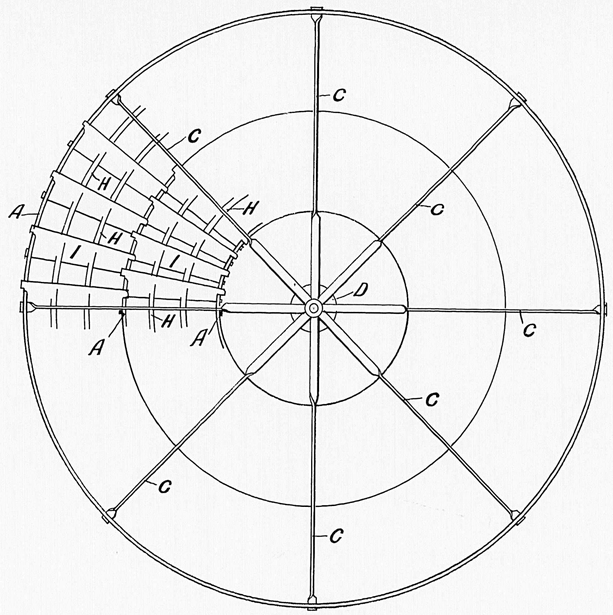



FIG 1.

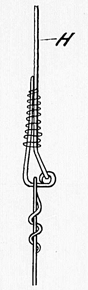



FIG 4.

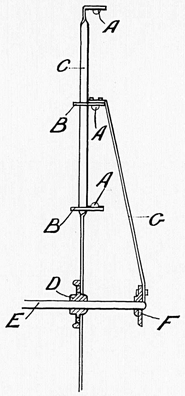



FIG 2.

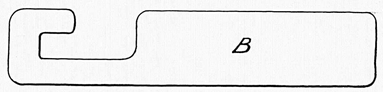



FIG 3.

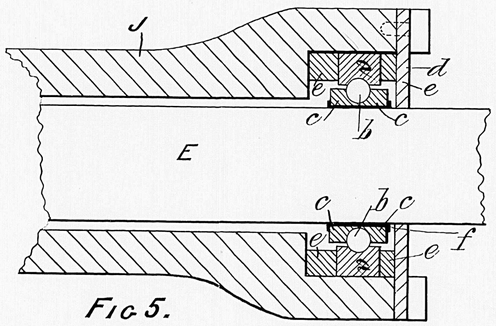



FIG 5.

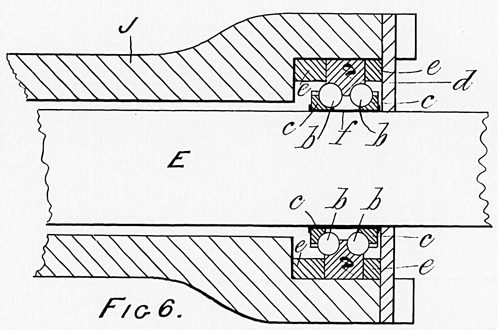



FIG 6.

John Marshall