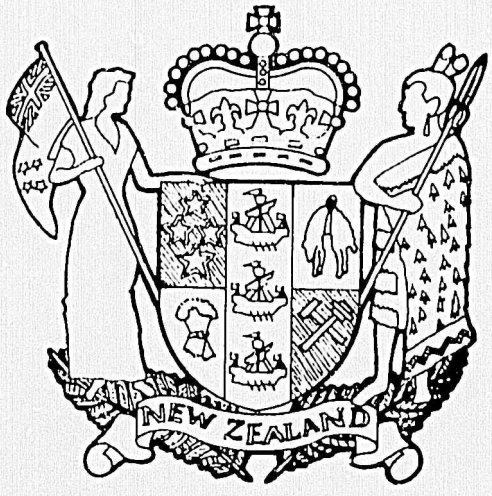


NEW ZEALAND

PATENT SPECIFICATION

35448

CABLE ADDRESS
"INGENIOUS" CHRISTCHURCH.
A.B.C. CODE 5TH EDITION.

BANKERS.
BANK OF NEW ZEALAND.

35788 TELEPHONE No 2882

Climie, Coates & Co.

Registered Patent Agents and Consulting Engineers.

PERCY R. CLIMIE, C.E.
REGD PATENT AGENT, N.Z.
FOR MEMB. CHARTD INST. PAT. AGENTS LOND.
FELLOW INCORPD INST. PAT. ATTORNEYS.
C. CARLYON COATES, M.E.
REGD PATENT AGENT, N.Z.
FOR MEMB. CHARTD INST. PAT. AGENTS LOND.
FELLOW INCORPD INST. PAT. ATTORNEYS.

Head Office Hereford St.
Christchurch N.Z.

October 7th. 1915

JOURNAL.
No. 23.
Date: 25.11.15.

907

No. 35788
Dated January 12th 1915

COMPLETE SPECIFICATION.

"Improved Self-Lubricating Means for Windmills"

I, JOHN LOUDON, of Christchurch, in the Dominion of New Zealand, Plumber, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following Statement :-

-----oOo-----

This invention relates to windmills of the non-geared type, that is to say the type in which the mill is mounted directly upon a crank-shaft which provides the necessary reciprocal motion for operating the pump.

It is the object of the present invention to provide a simple and efficient means for oiling the crank and bearings of the crankshaft without the employment of the usual lubricators fitted to each of such parts and necessitating constant replenishing.

In order that the nature of the invention may be fully understood, reference will now be made to the accompanying sheet of drawings in which :-

Fig. 1.- is a sectional elevation of a gear construction in accordance with the present invention, and,

Fig. 2.- is a cross section through the same.

1 is a crank-case constituting the framework of the gear and mounted in the usual manner upon the mast. Revolvably mounted in bearings 2, provided in the crankcase 1, is a crankshaft 3 upon which is carried the mill, while the pump is connected to the crank 4 by means of a connecting rod 5 as customary.

The crank-case 1 is adapted to contain a sufficient quantity of oil 6 to supply lubrication to the crank 4 and bearings 2 for a predetermined length of time, for which purpose the opening 7 through which the connecting-rod 5 passes is provided with a shroud 8 which extends upwards from the bottom of the crankcase to a height above the level of the oil 6.

According to the present invention, in order to elevate the oil 6 from the crankcase to the said moving parts, upon the crank-case 4 or the portion of the shaft within the crankcase, are provided a pair of radially arranged dippers 9, adapted at each revolution of such shaft, to dip beneath the surface of the oil 6

20

and so pick up a certain quantity of the latter, which, as such dippers assume the upward position, flows down upon the crank and shaft. To distribute the oil so supplied, the crank-brasses and the bearings 2 are formed with channels or oilways, while to carry the excess of oil the outer end of the bearings are provided with holes 10 communicating between such oil-channels in the bearings and the crank-case.

35788

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 :-

1. In a windmill gear of the type indicated, the combination with a crankcase adapted to contain a supply of oil, a pair of dippers radially arranged upon the crank or shaft and adapted as the latter revolves to elevate oil from the said crank case to the crank and shaft bearings, and oil channels adapted to distribute the oil so elevated along the bearings and to return the excess of such oil to the crankcase, substantially as described.

2. An improved self-lubricating means for windmills, constructed, combined arranged and operating substantially as herein described and explained and as illustrated in the accompanying drawings.

DATED at CHRISTCHURCH, the 7th. day of October, 1915.

Agents for the Applicant.

Certified to be a True Copy

Agents

35788

Fig. 1

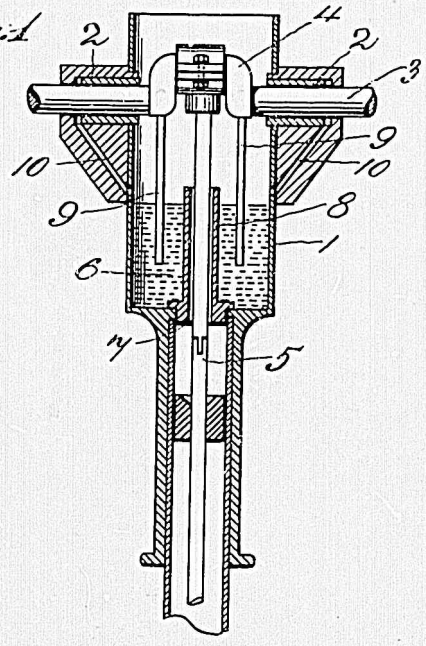
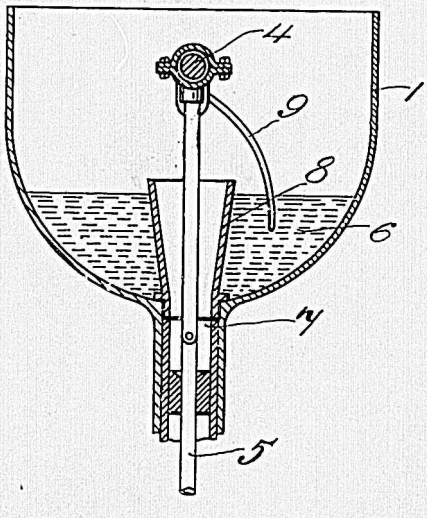


Fig. 2



END